County. Employment losses here were again the rule of thumb as 3,100 jobs were lost. An additional problem for Pima County's economy was their dependence on trade with Mexico. Although they are not nearly as dependent on border trade as is true of many border communities, they still derive a lot of business from Mexican nationals. This has had the most influence on retail trade and service businesses and to a lesser extent, even on real estate companies.

As 1982 came to a close, what had been expected to be a mild recession that would end by mid-year, continued to grow deeper. Increases in unemployment that had been relatively minor in earlier years grew in intensity as employers saw the demand for their products fall and they were forced to reduce their work forces. While 1982 was not nearly as serious as the 1974-1975 recession, that is of little consolation to those people unable to find work.

THE NATION IN 1982

As the previous article on Arizona's economy indicates, little progress was made on the economic front during 1982. Yes, nationally the prime interest rate fell from an annual average of 18.87 percent in 1981 to 14.86 percent in 1982. But most of this improvement is the result of inflation falling from 10.3 percent to 6.1 percent and unemployment rising from 7.6 percent to 9.7 percent. Interest rates, less the rate of inflation, remain near record highs and consumer confidence has been so shaken by concern over the rising unemployment rate that expectations of rising consumption resulting from tax cuts and increased Social Security benefits have not been realized. It thus seems appropriate to look back over the last year and see if it holds any clues for what we can expect in 1983.

Depending on which economic statistic you use to measure the performance of the economy, the current recession was or was not one of the most severe on record. The decline in gross national product in 1982 was 1.8 percent. Although few periods in recent history have surpassed this annual decline in the sum of goods and services produced, it is far from the greatest decline registered. This was also the case for the unemployment rate. It averaged 9.7 percent during 1982, with December reaching 10.8 percent. The number of people unemployed reached 12 million and almost everyone knows a friend or relative who have lost their job. But, more than any single economic statistic can reflect, the greatest problem we face is the breadth and duration of this recession. Except for a modest, and short-lived, recovery in 1981, this recession can actually be traced all the way back to 1980.

In 1981, gross national product rose by 1.9 percent to $1.503 trillion. But in 1982, gross national product dropped by 1.8 percent (to $1.476 trillion) and even the current recovery being forecast nationally will only bring that back to $1.501 trillion. That means that from 1981 through 1983, we expect that the economy will return only to a level that existed two years earlier. Given the unusually long length of this recession, not necessarily its depth, people have had more of an opportunity to be exposed to the effects of a recession and have made appropriate adjustments in their consumption patterns.

So with all of this happening, it is important to examine why a recovery seems to be growing more imminent, but also why this will not be as vigorous a recovery as usually happens at the end of a recession. First on the positive side pointing toward recovery, there are many things to consider. During the fourth quarter of 1982, a massive inventory correction took place as manufacturers and retailers reduced their orders for goods and used their inventories to meet sales demand. Nearly every recent recovery has involved an increase in production as employers expanded their operations to replenish inventories. Thus, the stage is being set for an increase in production to replenish inventories. In addition, the increase in military expenditures are beginning to be felt by manufacturing companies. In the months and years ahead, as more contracts are awarded and production begins, employment will continue to increase. And while all this has been happening, inflation as measured by the consumer price index has continued to fall, oil prices appear headed downward and the number of people applying for unemployment insurance has begun to moderate. These changes, coupled with other good news such as a more accommodating monetary policy, might lead us to believe that the stage is set for recovery.

But our optimism must be tempered by certain negative factors that will keep the recovery from being as vigorous as would otherwise be true. Most often mentioned has been the federal budget deficit. Current projections place it near $200 billion for the next two years, with it slowly falling in later years. This means that much of the money available to make loans will be consumed by the federal government. And with the Federal Reserve indicating that it will not monetize, the federal debt interest rates will very likely remain at double-digit levels even though inflation has dropped significantly.

As well, consumer and producer confidence in the economy is weak. Consumers have been hesitant to go into debt to make purchases because interest rates are still high and they do not feel secure in their employment. Producers feel many of the same pressures. Borrowing money for them is expensive and only about two-thirds of their productive capacity is currently being used. With that much excess capacity companies can easily expand output as sales increase without buying more plant and equipment. Thus difficulties are being felt both by producers and consumers.

If these domestic problems were not enough for the coming year or two, the international market is weak also. Many foreign nations have recently gone into debt to finance economic development. But now they are finding it difficult to repay those debts. And while lower prices for oil will be beneficial to motorists, this will place further difficulties on these countries to pay their debts. So the international market for our goods and services will remain depressed until their debt burden has been lightened.

Therefore, the national outlook remains mixed, with some improvement expected, but sufficient difficulties being encountered to retard what would otherwise be a strong recovery. While this represents the most likely path for our national economy, and therefore Arizona's economy, it is in no way a guarantee that the economy will perform in the way expected. As another article in this NEWSLETTER indicates, our accuracy is far from perfect. If the forecast is in error, we probably are too pessimistic. If consumer spending and business investments were to improve more than expected, not an unreasonable idea, the recovery would be much stronger. At this point, only time will tell.

FORECAST ACCURACY

When you're hot, you're hot. But when you're not, forecasts have a way of missing the mark (see related article on pg. 9). That most definitely characterizes the accuracy of our forecasts over the last two years. In our forecasts for 1981, we missed total wage and salary employment by 0.6 percent or 6,400 jobs. We did our best for 1982 and missed the same variable by 2.3 percent, 23,500 jobs. And while we were a little too pessimistic in 1981, we were definitely too optimistic in 1982. But lest you view this as an isolated occurrence, realize that we were in the company of many other fine economists who underestimated the potential depth and duration of this recession. In looking at the reasons for this error, a number of interesting points need to be made.

In making our forecasts, we take as given the direction of the national economy and then develop the Arizona forecasts around this background. As mentioned elsewhere, we use national variables forecasted by Data Resources, Inc. to set the national picture. As you can see from the table that follows, their expectation of a recovery beginning in the third quarter of 1982 failed to materialize. While gross national product was expected to grow in 1982, it in fact dropped. And unemployment that was also expected to peak near the middle of 1982 and then fall, continued to rise throughout 1982.

Since the national forecast overstated the strength of the economy in 1982, our forecasts tended to be high also. In those industries that depend most heavily on national activity, such as manufacturing, mining and construction, we did not correctly forecast employment drops. But if we exclude those three industries that account for about 20 percent of Arizona's employment, our forecasts only missed actual figures by 0.9 percent. That compares very favorably with our forecasts of a year ago and points to the obvious fact that much of last year's error is accounted for by errors in the national economic forecasts.

Above all other industries, our greatest difficulty was registered in the copper mining industry. While we expected some decline in employment, our forecasts did not nearly catch the tremendous drop that occurred in late spring and early summer. Most of our difficulty was in Pima County and to a lesser extent in the nonmetropolitan areas.

Last year, we noted that the greatest difficulty in making accurate forecasts was recorded among the smaller industries in the smaller geographic areas. That was the case again this year. In the balance of the state, we were too optimistic in all major industries and nearly the same thing was true in Pima County. This represents the difficulty in making forecasts when a very small number of companies account for the vast majority of employment in a particular industry.

Our forecasts for 1982 emphasize just how dependent our model is on accurate national forecasts. We have again used a comparable national forecast this year to produce our local forecasts. Hopefully it will more accurately reflect the course of economic events. As well, all the equations that produced this forecast have been re-estimated, and where necessary totally reworked. This very important job of maintenance is critical to keeping a high degree of reliability in the forecasts. But as always, we must wait for future events to determine the quality of our work.

		Real Gross National Product as of		Real GNP Change as of		Consumer Price Index as of		Unemployment Rate as of		Prime Interest Rate as of	
		1/82	1/83	1/82	1/83	1/82	1/83	1/82	1/83	1/82	1/83
1982	I	1485.2	1470.7	-2.8	-5.1	6.2	3.2	9.2	8.8	15.93	16.27
	II	1485.8	1478.4	0.2	2.1	6.3	4.6	9.5	9.4	13.93	16.50
	III	1504.1	1481.1	5.0	0.7	6.7	7.6	9.5	10.0	14.88	14.72
	IV	1520.2	1471.7	4.3	-2.5	7.0	2.6	9.4	10.7	15.88	11.96
1983	I	1536.1	1481.8	4.3	2.8	8.2	4.5	9.2	11.0	15.63	10.34
	II	1552.3	1491.8	4.3	2.7	7.9	5.7	8.9	10.7	15.36	10.51
	III	1570.3	1505.9	4.7	3.8	7.3	5.4	8.6	10.5	14.76	10.81
	IV	1582.5	1523.8	3.2	4.8	7.4	5.4	8.4	10.3	15.67	11.27

Source: Data Resources, Inc. January 24, 1983. Control.

	ARIZONA			MARICOPA		
	Actual	Forecasted	% Diff.	Actual	Forecasted	% Diff.
Wage & Salary	1,029.2	1,052.7	2.3	654.2	663.1	1.4
Manufacturing	153.5	162.0	5.5	111.1	117.6	5.9
Mining	18.4	23.5	27.7	0.5	0.4	-20.0
Construction	64.1	67.1	4.7	43.4	44.8	3.2
T.C.P.U.	56.2	54.9	-2.3	35.4	33.5	- 5.4
Trade	254.3	259.7	2.1	169.6	173.8	2.5
F.I.R.E.	61.7	61.1	-1.0	48.1	47.2	- 1.9
Services	221.1	222.8	0.8	145.9	146.6	0.5
Government	199.9	201.6	0.9	100.2	99.2	- 1.0

	PIMA			Balance of State		
	Actual	Forecasted	% Diff.	Actual	Forecasted	% Diff.
Wage & Salary	189.8	194.8	2.6	185.2	194.8	5.2
Manufacturing	25.5	25.4	-0.4	16.9	19.0	12.4
Mining	4.7	7.3	55.3	13.2	15.8	19.7
Construction	11.7	12.5	6.8	9.0	9.8	8.9
T.C.P.U.	8.8	9.0	2.3	12.0	12.4	3.3
Trade	43.2	44.1	2.1	41.5	41.8	0.7
F.I.R.E.	8.6	8.8	2.3	5.0	5.1	2.0
Services	43.1	42.9	-0.5	32.1	33.3	3.7
Government	44.2	44.8	1.4	55.5	57.6	3.8

ARIZONA, 1983-1984

Looking into the future of Arizona's economy for the next two years, there is much to consider. It appears that a national recovery is beginning to form slowly, but the rest of the world faces a difficult future. An improving national economy will mean a greater demand for Arizona's goods and services, but which sectors will flourish and which will not is not so easily defined. And how will our key proximity to Mexico help or hinder our future? These and many other variables must be carefully weighed and considered.

Consistent with many national forecasts, we expect Arizona will record only moderate growth in 1983. But the economy should be expanding fairly rapidly by the end of the year, and this will set the stage for strong growth in 1984. Statewide, the unemployment rate for 1983 is expected to average 9.6 percent, down from 9.9 percent in 1982. As the following table indicates, much of the employment growth will be in trade and services. Falling interest rates will add to residential construction employment, but the commercial and industrial sectors are expected to experience some losses. Meanwhile, tight government budgets will keep staff from expanding and will keep government, particularly the state and local component, one of the slowest growing industries.

The state will likely experience the most economic difficulty in copper mining. Some employment will be regained in 1983, but only later in 1983, and this will leave many people still on layoff. Particularly troubled will be Gila, Pinal, Pima, Greenlee, and

Cochise counties. The dependence of many nonmetropolitan communities on one employer has forced them into a very difficult position. Income in the local areas is down seriously, and as unemployment benefits and other programs are exhausted, the difficult decisions covering how to exist in the future must be addressed. While many individuals with considerable seniority may yet regain their previous jobs, others with much less seniority face a more difficult choice. In many of these communities, and really throughout most of Arizona's nonmetropolitan areas, job opportunities are both quite scattered and limited.

In manufacturing, the picture is beginning to brighten. The industry has now suffered employment losses for nearly a year and a half, but the beginning of a recovery appears to be at hand. An expanding demand for electronic components in both residential and commercial products will help to increase employment. The further application of this technology will particularly help the two metropolitan counties of Maricopa and Pima. As well, while 1982 brought the first hint of increased defense expenditures, 1983 will see significant growth in that area. As new employers hire staff and existing employers expand, we expect to see this key industry add 1,200 and 12,500 jobs respectively in 1983 and 1984. The sector of this industry that will probably experience the slowest growth is commercial aviation. From the construction of jet engines and avionics, all the way to assembly of the aircraft themselves, it probably will not be before the later part of 1983 that significant rehiring begins.

For the last three years, construction employment has been declining. While high interest rates made it nearly impossible to buy or sell a home, a lack of new job opportunities kept Arizona's population from growing. Now that appears to be slowly changing. Interest rates have recently fallen and building permits are up substantially. But it must be recognized that this increase is from a very low previous level. Nonetheless, construction should be up 6.4 percent in 1983. Part of the reason that construction is not expected to grow more rapidly is that while residential building will be up, commercial and industrial construction activity appears headed downward. Activity at the Palo Verde Nuclear Power Plant has reached its peak and in the next two years, employment will be headed downward as the construction phase moves into operation. As well, recent construction of retail and office space has left a surplus of floor space on the market and this will slow activity there. On net, while construction employment will be up, much of the change will be masked by employment losses in one sector that balance employment gains in another sector.

As noted earlier, while 1982 was not a particularly outstanding year for services and retail trade, these two industries did experience some growth. With the recession obviously slowing these two industries earlier, the expectation is that as the economy begins to recover, a combination of increasing population growth and an improvement in the state's manufacturing, construction and, to a limited extent, mining industries will help to fuel more normal growth. But this improvement will not be evenly distributed across the state. Growth will likely be greatest in Maricopa County because of its particular mix of industries. In Arizona's southern counties, in particular the border communities and Tucson, growth will be much slower as the devaluation of the peso makes it very expensive for Mexican nationals to buy products in this country, but encourages people in this country to enter Mexico in search of bargains. Also, the expectedly slow recovery of copper mining will continue to be a roadblock to recovery in Arizona's mining communities. Still, with tourism and general population demands growing, these two industries are expected in 1983 to add 5,900 jobs. This 1.2 percent growth in 1983 is expected to reach 20,800 new jobs in 1984. These two industries will continue to be the source of many jobs for Arizona residents.

(Continued on pg. 11)

Labor Force and Employment (in thousands)

Arizona

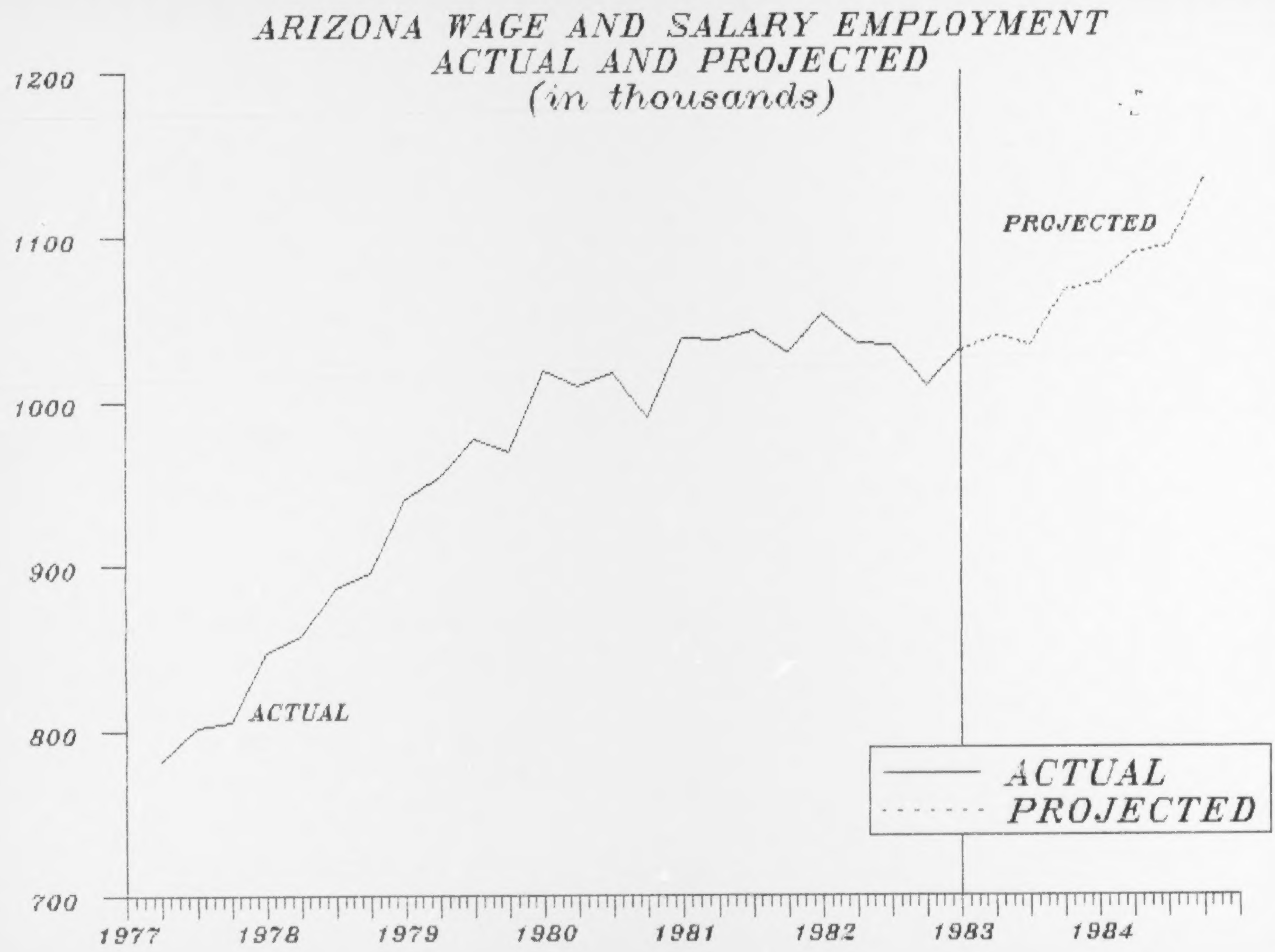
	1982 Annual Avg.	1983 Annual Avg.	1984 Annual Avg.	% Change 1982-83	% Change 1983-84
Labor Force	1323.0	1344.5	1379.5	0.9	2.6
Employment	1192.0	1216.2	1265.8	2.0	4.1
Unemployment	131.0	128.3	113.7	-2.1	-13.8
Rate	9.9%	9.6%	8.2%	-	-
Wage & Salary	1029.3	1043.4	1098.0	1.4	5.2
Manufacturing	153.5	154.7	167.2	0.8	8.1
Mining	18.3	16.4	18.8	-10.4	14.6
Construction	64.1	68.2	75.8	6.4	11.1
T.C.P.U.	56.5	57.1	60.5	1.1	6.0
Trade	254.2	256.7	268.3	1.0	4.5
F.I.R.E.	61.7	60.7	62.8	-1.6	3.5
Service	221.0	224.4	233.6	1.5	4.1
Government	199.9	205.2	211.0	2.7	2.8

Maricopa County

	1982 Annual Avg.	1983 Annual Avg.	1984 Annual Avg.	% Change 1982-83	% Change 1983-84
Labor Force	806.6	830.3	855.0	2.9	3.0
Employment	743.2	763.4	794.8	2.7	4.1
Unemployment	63.4	66.9	60.2	5.5	-10.0
Rate	7.9%	8.1%	7.0%	-	-
Wage & Salary	654.3	663.8	696.9	1.5	5.0
Manufacturing	111.1	111.1	119.3	0.0	7.4
Mining	0.5	0.6	0.7	20.0	16.7
Construction	43.4	46.1	51.6	6.2	11.9
T.C.P.U.	35.5	35.9	38.0	1.1	5.8
Trade	169.6	171.3	179.7	1.0	4.9
F.I.R.E.	48.1	47.3	48.8	-1.7	3.2
Service	145.9	147.8	152.5	1.3	3.2
Government	100.2	103.7	106.3	3.5	2.5

Pima County

	1982 Annual Avg.	1983 Annual Avg.	1984 Annual Avg.	% Change 1982-83	% Change 1983-84
Labor Force	244.4	252.4	259.6	3.3	2.9
Employment	221.0	228.1	239.4	3.2	5.0
Unemployment	23.4	24.3	20.2	3.9	-16.9
Rate	9.6%	9.6%	7.8%	-	-
Wage & Salary	190.0	195.1	207.9	2.7	6.6
Manufacturing	25.6	26.9	30.1	5.1	11.9
Mining	4.7	4.4	6.0	-6.4	36.4
Construction	11.7	12.6	13.8	7.7	9.5
T.C.P.U.	9.0	9.1	9.7	1.1	6.6
Trade	43.2	44.2	46.4	2.3	5.0
F.I.R.E.	8.5	8.6	8.9	1.2	3.5
Service	43.1	43.8	45.6	1.6	4.1
Government	44.1	45.5	47.4	3.2	4.2



ARIZONA WAGE AND SALARY EMPLOYMENT
ACTUAL AND PROJECTED
(in thousands)

Finally, any analysis of Arizona's economy would be incomplete without a look at government. People were very surprised by the slight growth recorded in this industry during 1982. And many will be equally surprised by the 27 percent growth we expect in 1983. A number of different factors lead to this conclusion. First and foremost, one must recognize that nearly half of the people employed in government work in education. While budgets are under intense pressure in this area, major staff layoffs have not been the source of savings. Rather, budgets have been trimmed of capital construction and maintenance expenses, extracurricular activities, supplies, travel, and wage increases. This has been true in nearly every sector of government. As well, part-time staff have been hired in place of full-time positions. This has helped to hold costs down, but has made it appear that employment is growing. All of this coupled with growing work study activity will likely add 5,300 jobs in 1983 and an additional 5,800 in 1984.

Arizona stands to benefit significantly from an improving national economy. With interest rates having improved significantly, and the liklihood quite high that consumer price levels will remain low as oil prices and agricultural products remain reasonable, 1983 could be a year of moderate growth. But there are enough negative factors in terms of federal deficits, a weak international economy and low confidence in the economy, that this recovery will begin weakly. To the extent that these negative factors can be brought under control, our forecasted drop in the unemployment rate to 9.6 percent in 1983 and 8.2 percent in 1984 might be too conservative.

MARICOPA COUNTY, 1983 - 1984

Of all the counties in Arizona, Maricopa County suffered least during the 1982 recession. The Phoenix metropolitan area is important not only because it is the largest economic entity in the state, but because it also contains many of the financial, medical, and government institutions that are important to the rest of the state. While unemployment statewide rose from 7.7 percent at the beginning of 1982 to 10.9 percent by the end of the year, unemployment in Maricopa County rose from 6.2 percent to 8.7 percent over the same period. But, while unemployment was below both the national and statewide averages, it was still considerably above the 1980 average of 5.9 percent. Led by an improving environment for manufacturing and construction, the county's unemployment rate should improve slowly during the first part of 1983 and improve more rapidly as we move into 1984.

Much of what was said previously concerning the direction of Arizona's economy in the years ahead is equally applicable for Maricopa County. A combination of rising defense purchases and increased demand for semiconductor components will help many Valley employers to maintain and even expand their work forces. During 1983, those jobs lost in 1982 and the later part of 1981 will be recovered. And as the economy continues to improve, 1984 should see a 7.4 percent increase. During most of 1983, we expect that much of this growth will be the result of existing companies expanding their staffs. It won't be until very late 1983, and probably well into 1984, before we can expect the relocation of new firms to the Phoenix metropolitan area to fuel growth further. Electronics and aerospace are still a very important part of manufacturing and until their national and international markets recover, growth will be slow.

Meanwhile, the outlook for construction appears to be changing. After nearly three years of continuous employment declines, the trough appears to be passing. Residential building permits are again beginning to grow

(Continued on pg. 16)

Arizona Labor Force and Employment

January 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Jan.* 1983	Dec. 1982	Jan. 1982	Dec. to Jan.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1332.3	1350.1	1280.4	-17.8	+51.9
Total Unemployment	144.1	141.5	101.3	+2.6	+42.8
Rate	10.8	10.5	7.9	---	---
Rate (Sea. Adj.)**	10.6	10.9	7.7	---	---
Total Employment	1188.2	1208.6	1179.1	-20.4	+9.1

THE ABOVE LABOR FORCE STATISTICS SHOULD

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Jan.* 1983	Dec. 1982	Jan. 1982	Dec. to Jan.	1982 to 1983
TOTAL WAGE AND SALARY	1029.0	1043.5	1028.2	-14.5	+0.8
Manufacturing	148.0	148.9	158.3	-0.9	-10.3
Durable Goods	114.0	114.5	123.6	-0.5	-9.6
Stone, Clay and Glass	5.0	4.9	5.5	+0.1	-0.5
Primary and Fabricated Metals	14.1	14.2	17.2	-0.1	-3.1
Primary Metals	6.5	6.5	9.2	+0.0	-2.7
Fabricated Metals	7.6	7.7	8.0	-0.1	-0.4
Machinery	59.5	60.1	62.6	-0.6	-3.1
Other Durable Goods	35.4	35.3	38.3	+0.1	-2.9
Aircraft and Missiles	16.7	16.7	18.3	+0.0	-1.6
Lumber and Wood Products (Except Furniture)	4.8	4.8	5.0	+0.0	-0.2
All Other Durable Goods	13.9	13.8	15.0	+0.1	-1.1
Nondurable Goods	34.0	34.4	34.7	-0.4	-0.7
Food and Kindred Products	8.5	8.8	8.5	-0.3	+0.0
Apparel	5.0	4.9	5.2	+0.1	-0.2
Printing and Publishing	11.7	11.6	11.4	+0.1	+0.3
All Other Nondurable Goods	8.8	9.1	9.6	-0.3	-0.8
Mining and Quarrying	15.8	15.8	21.9	+0.0	-6.1
Copper Mining	12.8	12.8	18.9	+0.0	-6.1
Other Mining and Quarrying	3.0	3.0	3.0	+0.0	+0.0
Construction	65.9	65.2	63.8	+0.7	+2.1
Trans., Communications, and Public Utilities	56.3	56.4	56.1	-0.1	+0.2
Transportation	23.4	23.7	23.8	-0.3	-0.4
Communications and Public Utilities	32.9	32.7	32.3	+0.2	+0.6
Trade	258.5	264.5	255.6	-6.0	+2.9
Wholesale Trade	51.8	51.9	52.0	-0.1	-0.2
Retail Trade	206.7	212.6	203.6	-5.9	+3.1
General Merchandise and Apparel	39.1	42.4	40.6	-3.3	-1.5
Food Stores	33.2	34.0	32.8	-0.8	+0.4
Automotive and Service Stations	24.2	24.2	24.0	+0.0	+0.2
Eating and Drinking Places	69.6	69.8	66.0	-0.2	+3.6
Other Retail Trade	40.6	42.2	40.2	-1.6	+0.4
Finance, Insurance, and Real Estate	61.8	61.9	61.1	-0.1	+0.7
Services and Miscellaneous	223.4	222.7	216.4	+0.7	+7.0
Hotels and Other Lodging Places	23.0	23.3	22.7	-0.3	+0.8
Business Services	40.5	40.3	39.3	+0.2	+1.2
Health Services	61.9	61.6	59.6	+0.3	+2.3
Other Services	98.0	97.5	95.3	+0.5	+2.7
Government	199.3	208.1	195.0	-8.8	+4.3
Federal	38.1	38.2	37.1	-0.1	+1.0
State and Local	161.2	169.9	157.9	-8.7	+3.3
School	96.0	105.0	91.8	-9.0	+4.2

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

January 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Jan.* 1983	Dec. 1982	Jan. 1982	Dec. to Jan.	1982 to 1983	Jan.* 1983	Dec. 1982	Jan. 1982	Dec. to Jan.	1982 to 1983
813.6	824.7	787.0	-11.1	+26.6	249.6	252.4	233.9	-2.8	+15.7
70.6	69.8	50.0	+0.8	+20.6	27.1	26.1	18.0	+1.0	+9.1
8.7	8.5	6.4	---	---	10.9	10.3	7.7	---	---
8.5	8.7	6.2	---	---	10.8	10.7	7.7	---	---
743.0	754.9	737.0	-11.9	+6.0	222.5	226.3	215.9	-3.8	+6.6

T BE USED FOR ECONOMIC ASSISTANCE.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

656.0	664.8	655.2	-8.8	+0.8	191.9	194.7	187.1	-2.8	+4.8
106.7	107.3	114.9	-0.6	-8.2	25.3	25.7	25.4	-0.4	-0.1
84.0	84.3	91.8	-0.3	-7.8	20.5	20.9	20.5	-0.4	+0.0
3.0	3.0	3.4	+0.0	-0.4					
9.2	9.4	10.8	-0.2	-1.6					
47.2	47.4	50.8	-0.2	-3.6					
24.6	24.5	26.8	+0.1	-2.2					
22.7	23.0	23.1	-0.3	-0.4	4.8	4.8	4.9	+0.0	-0.1
5.8	6.0	6.1	-0.2	-0.3					
2.2	2.2	2.3	+0.0	-0.1					
8.6	8.5	8.3	+0.1	+0.3					
6.1	6.3	6.4	-0.2	-0.3					
0.6	0.5	0.4	+0.1	+0.2	3.8	3.8	5.6	+0.0	-1.8
45.1	44.1	44.6	+1.0	+0.5	12.3	12.4	10.8	-0.1	+1.5
35.3	35.7	35.1	-0.4	+0.2	9.0	8.9	8.9	+0.1	+0.1
14.9	15.3	15.3	-0.4	-0.4	4.0	3.9	4.0	+0.1	+0.0
20.4	20.4	19.8	+0.0	+0.6	5.0	5.0	4.9	+0.0	+0.1
173.1	177.1	171.5	-4.0	+1.6	43.4	44.5	42.9	-1.1	+0.5
40.9	40.9	40.8	+0.0	+0.1	5.8	5.9	6.1	-0.1	-0.3
132.2	136.2	130.7	-4.0	+1.5	37.6	38.6	36.8	-1.0	+0.8
24.6	27.1	25.9	-2.5	-1.3	7.4	7.9	7.6	-0.5	-0.2
21.4	22.0	21.1	-0.6	+0.3	5.4	5.5	5.3	-0.1	+0.1
14.6	14.6	14.4	+0.0	+0.2	4.3	4.3	4.3	+0.0	+0.0
43.9	43.6	41.5	+0.3	+2.4	13.0	13.1	12.7	-0.1	+0.3
27.7	28.9	27.8	-1.2	-0.1	7.5	7.8	6.9	-0.3	+0.6
47.9	48.0	47.7	-0.1	+0.2	8.8	8.8	8.4	+0.0	+0.4
148.5	147.9	143.4	+0.6	+5.1	44.0	43.6	42.4	+0.4	+1.6
14.2	14.3	13.7	-0.1	+0.5	3.5	3.3	3.3	+0.2	+0.2
32.9	32.7	32.2	+0.2	+0.7	6.0	6.0	5.6	+0.0	+0.4
40.9	40.7	39.3	+0.2	+1.6	13.6	13.5	13.1	+0.1	+0.5
60.5	60.2	58.2	+0.3	+2.3	20.9	20.8	20.4	+0.1	+0.5
98.8	104.2	97.6	-5.4	+1.2	45.3	47.0	42.7	-1.7	+2.6

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

Nonmetropolitan Counties Labor Force and Employment

January 1983 (preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,475	29,050	33,800	17,225	9,000	3,475	4,725
Total Unemployment	3,175	4,200	4,150	5,900	2,475	425	725
Rate	20.5%	14.5%	12.3%	34.3%	27.5%	12.2%	15.3%
Rate (Seas. Adj.)**. . . .	20.0%	13.9%	11.1%	32.8%	27.4%	12.0%	INA
Total Employment	12,300	24,850	29,650	11,325	6,525	3,050	4,000

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR REVENUE SHARING PURPOSES

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY . . .	12,925	20,625	28,400	9,300	4,125	2,975	2,350
Manufacturing	375	1,375	2,275	1,250	100	300	100
Mining and Quarrying	25	375	50	1,600	75	1,600	0
Construction	1,500	650	975	225	150	25	75
Trans., Comm., & Pub. Util..	1,725	1,450	2,425	300	175	50	50
Trade	1,025	4,025	6,550	1,775	1,350	300	800
Fin., Insur., & Real Estate.	125	550	750	225	125	25	125
Services and Miscellaneous .	3,100	2,675	6,275	1,575	625	75	600
Government	5,050	9,525	9,100	2,350	1,525	600	600

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,475	24,425	33,500	9,200	32,450	34,325
Total Unemployment	4,025	4,625	6,275	2,225	3,800	4,350
Rate	17.9%	18.9%	18.7%	24.2%	11.7%	12.7%
Rate (Seas. Adj.)**. . . .	17.1%	17.5%	18.6%	26.3%	10.6%	INA
Total Employment	18,450	19,800	27,225	6,975	28,650	29,975

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR REVENUE SHARING PURPOSES

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY . . .	14,375	15,750	23,550	7,025	17,525	22,300
Manufacturing	2,100	1,275	2,350	725	1,950	1,700
Mining and Quarrying	275	1,100	5,250	25	1,025	75
Construction	925	575	575	175	1,050	1,700
Trans., Comm., & Pub. Util..	900	1,625	975	525	825	975
Trade	4,275	3,275	3,775	2,975	4,475	7,425
Fin., Insur., & Real Estate.	600	300	600	250	750	650
Services and Miscellaneous .	2,375	3,500	2,050	925	3,375	3,850
Government	2,925	4,100	7,975	1,425	4,075	5,925

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for revenue sharing purposes.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Arizona Labor Force and Employment for Revenue Sharing and Grant Applications

January 1983 (preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,331,387	1,183,251	148,136	11.1%
Apache	15,495	12,239	3,256	21.0
Cochise	29,051	24,748	4,303	14.8
Coconino	33,786	29,529	4,257	12.6
Gila	17,330	11,255	6,075	35.1
Graham	9,043	6,498	2,545	28.1
Greenlee	3,480	3,031	449	12.9
La Paz	4,763	4,021	742	15.6
Maricopa	812,199	739,612	72,587	8.9
Mohave	22,514	18,372	4,142	18.4
Navajo	24,460	19,706	4,754	19.4
Pima	249,403	221,510	27,893	11.2
Pinal	33,560	27,105	6,455	19.2
Santa Cruz	9,222	6,940	2,282	24.7
Yavapai	32,433	28,517	3,916	12.1
Yuma	34,648	30,168	4,480	12.9

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Estimated Hours and Earnings of Production Workers in Selected Industries in Arizona

INDUSTP	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	JAN.* 1983	DEC. 1982	JAN. 1982	JAN.* 1983	DEC. 1982	JAN. 1982	JAN.* 1983	DEC. 1982	JAN. 1982
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FOR THE STATE OF ARIZONA*									
Manufacturing	347.60	357.00	333.50	39.5	40.8	38.6	8.80	8.75	8.64
Aircraft & Missiles	479.80	512.11	453.65	43.5	45.4	42.2	11.03	11.28	10.75
Food & Kindred Products	318.00	313.23	284.26	40.0	39.7	40.9	7.95	7.89	6.95
Primary Metals	460.53	459.80	463.67	38.7	38.9	39.8	11.90	11.82	11.65
Machinery	317.57	334.55	288.42	38.4	40.7	38.1	8.27	8.22	7.57
Copper Mining	524.21	531.45	483.07	40.2	40.6	38.4	13.04	13.09	12.58
Construction	482.28	443.79	469.49	36.9	33.8	35.3	13.07	13.13	13.30
Utilities	501.95	501.95	434.52	43.8	43.8	42.6	11.46	11.46	10.20
Retail Trade**	201.74	209.55	198.16	33.4	35.1	32.7	6.04	5.97	6.06
Wholesale Trade	323.98	323.98	314.03	38.8	38.8	39.7	8.35	8.35	7.91

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

slowly and this is helping to pull employment up also. But although interest rates have fallen, monthly mortgage costs are still quite high and it will require a continuing decline in interest rates to sustain this recovery. With rising vacancy rates in commericial buildings and with the Palo Verde Nuclear Power Plant approaching operational status, some construction employers will be forced to cut staffs. But reductions here should be offset by residential gains.

One area which is yet unclear is the employment impact of further federal highway construction. Part of the proposal is to repair existing interstate highways in need of maintenance. This of course would do little toward expanding the highway network. But it might help to free funds from other projects for new highway construction. Unfortunately, with the high cost of material and equipment in this sector, much of the new money will not find its way into paychecks. Thus the overall impact on employment will not be as great as might be true in other industries.

In the population-serving industries of trade and services, the lack of dependence on trade with Mexico will work to local advantage. Total employment in trade and services during 1983 is expected to rise to 1,700 and 1,900 respectively. While their respective growth rates of 1.0 percent and 1.3 percent for 1983 are considerably below historical levels, further growth in 1984 is expected. As manufacturing and construction employers expand their operations, this will increase the demand for goods and services. Tourism is also very important here. While the 1982 recession did not substantially reduce the number of people visiting the Valley, it did change their buying patterns. The need to save money was evident as people ate fewer meals at local restaurants and such activities as guided tours noted some reductions. But with further economic expansion expected in 1983 and into 1984, this should help to expand business here, too.

Finally, the outlook in government is for continued slow growth. While budget adjustments have been able to sustain previous staffing levels, that process will become increasingly difficult. Funding at the national, state and local levels is quite tight and that situation is not expected to change soon. While government employment dropped 1.3 percent in 1981 and rose only marginally by 0.6 percent in 1982, following years should be slightly stronger. Fueled by growing educational staffs and some increase in federal employment, total government jobs should be up 3,500 or 3.5 percent in 1983.

PIMA COUNTY, 1983 - 1984

The recent economic diversification in Pima County's economy helped it to survive serious economic setbacks that could have been considerably worse. In 1982 the unemployment rate began the year at 7.7 percent. But by October of that year, it had risen to 10.9 percent before falling slightly to 10.7 percent at year's end. Much of the reason for this substantial rise in unemployment are the economic troubles being faced by the copper mining industry and the recent peso devaluation. If industrial development had not been undertaken in previous years, the unemployment rate could easily have risen much higher.

A particular case-in-point of economic diversification is Pima County's manufacturing industry. A few years ago, only 8.7 percent of the county's employment was in manufacturing. In 1982, after only five years, that percentage had risen to 13.5 percent. While that is still below both state and national averages, it shows how much more important manufacturing has become to this county. And it is particularly noteworthly to realize that manufacturing employment in 1982 grew over 1981, in spite of a major aircraft maker that had to undertake major staff reductions. The point is obvious, manufacturing is growing very important here and will be even more dominant in the years ahead. With major electronics and aerospace manufacturers operating here, employment will expand. We expect an additional 1,300 jobs will be added in 1983. This will be followed by a further increase of 3,200 jobs in 1984. If this happens, manufacturing could account for as much as 14.5 percent of the local jobs. Most of this increase will represent an expanding high technology and defense-related sector as traditional smelting and heavy manufacturing operations are slow to recover.

Little optimistic can be said for copper mining in 1983. While prices have recently increased by five cents and a recovery appears to be underway for housing and automobiles, little indication has been given of employment increases. In fact, we expect employment to fall an additional 300 before turning around later in 1983 and actually rising 36.4 percent in 1984. With the labor contract scheduled to expire this summer, little chance for improvement is expected until that question can be settled. The importance of this industry should not be underestimated. Nearly 42 percent of the local copper mining jobs were lost in 1983 and there is reason to believe that some have been lost forever. Local purchases by mining companies and the families of employees are an important source of business. Recovery in Pima County will not be complete until the copper mining industry begins to rehire.

Construction will also recover in 1983, although it will be slow. After three years of falling employment that saw 4,300 jobs lost, the forecast is for an additional 900 jobs to be added. While it will take several years before all of the jobs lost can be recaptured, the direction appears to be changing. Residential activity will again be the main source of jobs, with commercial construction being less of a contributor.

Locally, trade and services will not perform as well as might be expected. This is true for many reasons. First, since Tucson is a major trading center for much of southern Arizona, difficulty in copper mining will cut into what otherwise would be a strong area. With employment here expected to be slow to recover, the impact will be on slower sales. Secondly, Tucson is a major trading center for Mexican nationals who wish to purchase goods and services in the United States. Following the recent peso devaluation, retail trade and related business dropped. While the impact was not as great as it was in Nogales, it still is expected to have an effect on local merchants. Finally, two new malls opened for business in 1982. This increased competition in the local area significantly. But since the local economy did not expand as much recently as many people had expected, an excess supply of shopping space appears to exist. This will tend to slow any expansion that would otherwise take place. With these factors in mind, we expect employment in these two areas to grow 2.0 percent in 1983 and 4.5 percent in 1984.

An important change appears to be slowly developing in Pima County that deserves some elaboration. For many years, many of the state's finance, insurance, communication and service businesses operated out of the Phoenix metropolitan area with a branch office in Tucson. This occurred because there was not enough activity in other areas to justify the cost of opening a full service office in another community. But as the local economy has expanded, many companies have found it very reasonable to open other offices. This trend is expected to continue and to expand in the future. In the areas of transportation, communication and public utilities as well as finance, insurance and real estate, a total of 200 jobs will be added in 1983 with that jumping to 900 jobs in 1984.

In government, the impact will generally be the same as in other parts of the state. Tight finances will keep employment increases to 3.2 percent in 1983. Some of this increase will be the result of civilian workers hired to work on local military bases. This of course will be slight and will be related to increased defense purchases. Otherwise, government will continue to look to cut expenses wherever possible.

Overall, 1983 will be a year for improvement in Pima County. While the unemployment rate reached 10.7 percent in December, we expect the rate to reach 8.9 percent by the fourth quarter of 1983. Total wage and salary growth will be a moderate 2.7 percent in 1983 before accelerating to 6.6 percent in 1984. The worst of economic times seen in the county now appear to be history. While copper mining and peso devaluation will continue to be a drag on the local economy, efforts at economic development and expansion are already beginning to pay rewards. Their benefit will be even more evident in the future.

NON METROPOLITAN ARIZONA
1983 - 1984

If any one area of Arizona embodied all of the troubles that the state faced in 1982, it would have to be the nonmetropolitan counties. The industries upon which they depend very heavily, tourism in the north, border trade in the south, lumbering, and copper mining have all been hurt. And with job opportunities in many areas sparse and widely dispersed, it is very difficult to get a new job after losing one. To underscore the seriousness of the situation, realize that unemployment in this area averaged 17.3 percent in the fourth quarter of 1982 and as we enter 1983 none of the 13 nonmetropolitan counties have below double-digit unemployment rates.

So what's the outlook? Unfortunately, much worse than either of the state's two metropolitan areas. The unemployment rate, after averaging 16.2 percent in 1982 will fall marginally to 14.2 percent in 1983 and further to 12.6 percent in 1984. Also, as job opportunities are created, people who had previously dropped out of the labor force because they felt no jobs were available, will reenter the labor force in search of employment. This will have the effect of slowing any decline in the unemployment rate.

Particularly hard hit have been the area's manufacturing and copper mining industries. In manufacturing, little employment change is forecast. A very large percentage, nearly a third, of the manufacturing employment in this area is contained in lumbering and copper smelting. The serious economic condition of construction has deeply cut into the demand for lumber products. Even with a slow recovery forecast for residential construction, it will likely be many months before lumbering companies can again expand. Many firms find themselves with sufficient stock on hand to meet an immediate increase in demand. And after suffering through three years of business declines, they will be hesitant to expand operations until increased demand is clearly evident. So, too, in copper smelting. With the mining of copper ore expected to expand slowly in late 1983 and 1984, little improvement is expected here soon.

As has been mentioned numerous times before, it appears that recovery in copper mining is at least six to nine months in the future. Questions over labor costs, the demand for copper in automobiles and homes, as well as the world supply of refined copper, will all need to be settled before any recovery can begin. Of particular concern to domestic producers of copper must be the international market. Many foreign countries are in severe financial shape, and in an effort to improve their balance of payments picture, they will likely see rising prices for natural resources such as copper as a ready source of cash. Depending on their relative financial position, a rising price may elicit sufficient supplies from these producers that domestic operators will have no incentive to reopen operations. If that were to be the case, our forecast of another 400 jobs lost in 1983 before a 7.2 percent growth in 1984 might be too optimistic. But as history has made very clear, economic conditions in this industry can change quickly and produce significant results.

In construction, the outlook is much brighter. With a certain amount of power plant construction and Central Arizona Project work underway, employment is expected to expand by 500 jobs or 5.6 percent in 1983. Additional highway construction activity and residential building will also help to supplement an employment picture that had previously been falling steadily for three years.

Areas to watch closely are the population and tourist serving industries of trade and services. We forecast that growth will be slow in these two industries during 1983 before noticeably improving in 1984. In 1983, we expect retail trade to lose 200 jobs and for services to add 800 jobs. In 1984, the comparable employment increases will be 1,000 and 2,700. Much of the reason for this poor showing in 1983 is the particular mix of consumers that shop in the nonmetropolitan areas of Arizona. The two biggest reasons for this nearly stagnant situation are the peso devaluation that has reduced border traffic by 50 - 75 percent and the hard times being experienced in many mining communities. As well, tourist activity has been below par in the northern counties as the national recession cut into vacation plans. While it is tempting to jump to the conclusion that a recovery is not coming to this sector, such is not the case. In 1982, trade lost over 400 jobs and services dropped an additional 2,000 people. So while 1983 will hardly be a banner year, it will be an improvement over the last year or two.

Finally, much of what happens in government will depend on actions undertaken in Washington, D.C. Since the Bureau of Indian Affairs, the Forest Service, and Bureau of Land Management are such important employers, any actions that affect employment will be felt immediately. We expect that about a 2 percent expansion of federal employment and a slight increase in school staff will nearly offset losses at the state and local level. Overall government in the nonmetropolitan area of Arizona is expected to reach 56,000, an increase of 400 jobs above the level that existed in 1982.

WHAT IS THE MODEL?

When the topic turns to forecasts, in particular economic forecasts, a veil of mysticism seems to surround them. Thoughts of crystal balls, computers, and analysts who are somehow able to see into the future give them an aura that is often undeserved. There are of course many ways to make forecasts. At one extreme, the forecasts can be completely subjective as the analyst uses his or her knowledge of history and current events to make prognostications. This method is fast, inexpensive and many times just as reliable as far more sophisticated approaches. But on the negative side, these forecasts can easily produce inconsistent outputs and they often suffer from biases of the individual forecaster. At the other extreme, large econometric models that require significant computer resources are another possibility. They have the advantage of producing consistent forecasts that minimize reporting bias. Unfortunately their complexity makes them expensive to operate and difficult to interpret, and they produce forecasts that may be only marginally superior to alternative methods.

So with all of that, how did we generate the forecasts contained in this issue of the NEWSLETTER? Actually, we used a combination of both methods, with most of the emphasis being placed on the econometric method. Although the actual operation of the model is quite complex, its approach is fairly straightforward. First, we have divided the state into three separate pieces--Maricopa County, Pima County, and the balance of the state. Within each of these three geographic areas, the industries have been analyzed to determine if the demand for their goods and services is from the local population or from external groups. For example, the demand for copper or semiconductor components comes mostly from consumers outside Arizona. These sectors we label as basic industries. Other industries, such as automotive repair, derive most of their demand from local residents. These sectors are called nonbasic industries.

The next step in the process involves the identification of variables that importantly contribute to employment changes in local industries. At this point the work is part science, part art. For the industries labeled basic, we look for variables at the national and international level that help to explain employment changes. In the copper industry, the world supply of copper, copper prices, and the number of automobiles or homes constructed are fairly obvious candidates. Some of these variables work well, others do not. But after going through a statistical procedure known as multiple regression, one equation is selected to explain employment changes in the copper industry. After this has been done for all the basic industries (there are 59 of them) it is then time to start estimating equations for the nonbasic industries. Here we look for local forces like population, total employment and other such variables to help explain employment changes. Again after a number of multiple regression equations are calculated, one equation is selected to explain a sector such as food stores. A final area covers those businesses that are importantly both basic and nonbasic. Classic examples are eating and drinking establishments. Part of the demand for their services comes from local residents who are interested in eating-out on occasion. That component would be labeled nonbasic. But part of their business is basic as well as in that they are providing meals to tourists who bring money from outside the state and spend it here. In these cases, the equations usually contain variables that are both local and national in scope.

After all these equations have been estimated, the job is not nearly done. All of these equations are placed in a computer program that actually performs the solution process. But before this can be done, the national and international variables that affect our basic industries must be forecast. These exogenous variables come from outside the model and obviously have an important impact. To the degree they are accurate, they should help make our local forecasts more accurate. Currently we use the Control Solution generated by Data Resources, Inc. (DRI), a widely respected private forecasting company. With national variables such as gross national product, interest rates, housing starts, and the level of income being derived from DRI, our model derives the locally determined, endogenous variables. Up to this point, the process has been fairly mechanical. Except for the selection of variables to include in each equation, very little subjectivity has been involved. But before the forecasts can be accepted, the analyst must review them.

Some, hopefully nearly all, of the different equations will yield reasonable estimates. But the model is not totally knowledgeable.

Certain events are outside the scope of the model because only a limited number of variables can be used. For example, we know that the Palo Verde Nuclear Power Plant is currently under construction, but at some point in the future the construction phase will be completed and the operation phase will begin. The analyst will likely have to take some control over the model, reducing construction at appropriate times by appropriate amounts and increasing utility employment appropriately. If the model has been constructed properly, this part, although very important, should not have to be performed often. And the employment changes in associated industries such as lumber, food stores, and government will be handled by the model.

With all of this done, the forecasts are ready for presentation. It requires a lot of effort, both in terms of staff and computer resources, but our experience over the past few years has been very positive. We use the results not only for our semi-annual employment forecasts, but also for occupational demand forecasts and occupational supply/demand forecasts. It has become an integral part of Labor Market Information. Each year we take each equation, all 209 of them, and re-estimate. It's a credit to those who have worked on the model before that very little is changed each year.

In addition to these forecasts, the model is also used to investigate alternative scenarios about Arizona's economy. Such questions as the impact of a continued national recession or a significant drop in interest rates can all be analyzed with the help of the model. It gives us a structure around which economic questions can be analyzed. While accuracy is quite important, the model also gives us a framework to better understand how our economy has developed and what impact we can expect from particular changes.

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NEW LMI PUBLICATIONS

Job Service Applicants and Job Openings Report continues to provide short-term supply and demand information based on activities in office of Arizona's Job Service.

One copy of the above LMI publication may be obtained by writing: Labor Market Information Publications - 733A, P.O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of printing.

CONTRIBUTING ARTICLES

The Arizona Labor Market Newsletter welcomes communications that supplement, challenge, or expand on research published in its pages. To be considered for publication, articles should be factual and analytical, and related to the labor market, economy, or occupation trends. Articles are subject to editing for size. Sorry, no fees paid. Communications should be addressed to Editor, Arizona Labor Market Newsletter, P.O. Box 6123, Site Code - 733A, Phoenix, Arizona 85005.

Arizona Unemployment Insurance Activities

	January 1983	December 1982	January 1982	% Change From 1 Year Ago
Arizona Claimants Served**	74,624	74,799	36,354	+105.3%
Arizona Weeks Unemployed***	INA	10.5	8.5	INA
Arizona Benefits Paid**	$ 22,402,850	$ 26,071,264	$ 9,434,272	+137.5%
Arizona Trust Fund Balance	$199,392,900*	$203,655,113	$273,392,309	- 27.2%

*Estimated **All Programs ***UI Only

With 1982 now behind us, we look forward to the coming year with the anticipation that economic growth forecasted for so long may arrive soon. While the unemployment rate is still quite high, it is encouraging to note the drop recorded in January.

January contained some of the best economic news we have seen in many months. Not only was there a substantial decline in the unemployment rate, but also the usual employment decreases that occur in January were much below previous levels. In both retail trade and government, substantial employment losses usually are recorded as staff hired for the holiday rush are released and the Christmas recess reduces teaching staffs. While employment declines were recorded in these two industries, they were nearly 2,200 less than usual. In general, most of this strength was recorded in Maricopa County and the balance of the state. But this apparent good news must be interpreted with care. Given our weak economic condition, these less-than-expected employment losses may reflect less-than-expected employment gains of a few months ago.

But the good economic news does not stop there. Both services and construction added to their staffs. The increase in construction is particularly noteworthy because it represents a substantial increase over what had been expected and because employment has now expanded for four consecutive months, adding 2,900 jobs. It is also encouraging to note that businesses that supply equipment to the construction industry have started to slowly rehire staff. In services, an apparent strong beginning to winter tourism activity added 1,000 jobs in Maricopa and Pima counties.

Yet, Arizona's bright picture in January was not without its dark clouds. In particular, manufacturing lost 900 jobs with most of the decline coming in Maricopa County. This very important industry has now suffered through 16 months of steady employment losses. While much of the loss in January was seasonal in nature, high technology employers are still trimming staffs. Also, the situation for the state's troubled copper mining industry was unchanged. It was nearly one year ago that layoffs of significant proportions first began. Since that time nearly 40 percent of the industry has been furloughed. Hope for the future of this industry, which is particularly important in the nonmetropolitan counties, rests with a rising price for copper. If national predictions of a recovery in automobiles and housing are accurate, this industry will again have reason to expand production.

Seasonal changes that occur in January make it a difficult month to interpret, but this month still contains some of the best economic news the state has seen in a longtime.

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January represents not only the beginning of a new year, but also the incorporation of new data and definitions that need to be identified. First, as of January 1st, Arizona's newest county, La Paz, has been created. Therefore, this is the first month for which unemployment rates are available for both La Paz and the newly defined Yuma counties. But it will be a few years before seasonally adjusted unemployment rates are available. Secondly, the federal government is now including employment in the Armed Services in calculating the unemployment rate. But at the state and local level, we are following the standard practice of not including this component and we will continue to compare our civilian unemployment rate with the comparable national figure. Finally, we include data from our annual benchmarking process in this release. The employment by industry estimates have been revised for 1981 and 1982. Civilian labor force data has been revised for 1980, 1981, and 1982. This data will be made available upon request.

NEW DEVELOPMENTS

Business Failures - Bankruptcy filings in Arizona set a record in 1982, with the number of businesses and individuals filing up by 12 percent over 1981 levels. Business filings showed the greatest increase, with 1,198 firms that declared bankruptcy representing a 50.3 percent increase.

Beauty Built Homes Inc. went out of business at the end of January after 25 years of operation and the construction of about 10,000 homes in Maricopa and Pima counties. Slow sales and the depressed economy were cited as reasons for the closing.

The Malcolm's Department Store, 3026 N. Fourth St. in Flagstaff, closed at the end of January after nearly 10 years of operation. Malcolm's has one other store in Phoenix, and officials have decided to concentrate efforts there.

Communications - Mountain Bell reduced its Southern Arizona work force by 56 employees by late January and eliminated another 94 positions elsewhere in Arizona. The reductions were made in the company's network distribution-service department and came primarily through early retirements and attrition. Layoffs were said to be made only as a last resort.

Construction - Universal Development Corp. has purchased 170 acres at Cactus Road, east of Pima Road in north Scottsdale. The $4.5 million site will be for a 670-unit residential project. First phase construction, scheduled for spring '83, will include single family homes.

Manufacturing - Cannon Electric Division of International Telephone and Telegraph Corp. broke ground in late January for an 18,000-square-foot expansion of its existing 75,000-square-foot plant. By the time the new Phoenix addition is completed in April, Cannon officials estimate 30 new employees, most of them skilled machinists, will be added to the local payroll. The Phoenix plant, located at 2801 Air Lane, produces electrical interconnecting devices.

Gates Learjet Corp. has signed a $565,000 contract to recondition 46 A-4 jets at Davis-Monthan Air Force Base for sale to Malaysia. The company will recall 18 laid-off workers.

Shure Bros. Inc., an Illinois-based electronics company, will open a plant in Agua Prieta, Sonora, just across the Mexican border from Douglas. The plant will manufacture microphone components and other electronic components in Mexico as part of the twin-plant program. Besides four electronic plants in Illinois, Shure Bros. operates one in Phoenix at 2122 W. Cheryl Drive.

Mining - Phelps Dodge Corp. announced in late January the immediate callback of 25 laid-off copper workers at its smelter operation in Morenci. The firm said the stockpile has been increasing gradually, and there now is enough to warrant restarting of a furnace at the smelter.

Travel and Tourism - The number of visitors to Grand Canyon National Park during 1982 was down 7 percent compared to the previous year. Bad weather during the early part of the year was blamed for most of the drop.

A record 7.5 million passengers passed through Sky Harbor Airport in 1982, up about 14 percent from 6.6 million in 1981. Predictions are that more than 8 million passengers will use the airport in 1983.

Trade - The 23-year old Tower Plaza will undergo a $3 million face lift to transform it into one of the first "factory outlet" shopping centers in the West. Refurbishing of the plaza at 3848 E. Thomas Rd. in Phoenix began in late February and will be completed by the end of the year.

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Prepared in cooperation with the Bureau of Labor Statistics & Employment and Training Admin., U.S. Department of Labor.

Arizona Labor Market NEWSLETTER
LABOR MARKET INFORMATION PUBLICATIONS
Site Code 733A
P.O. Box 6123
Phoenix, Arizona 85005

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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VII, No. 4
April 1983

Unemployment Rate
Seasonally Adjusted
February*

ARIZONA	10.8%
Maricopa Co.	8.5%
Pima Co.	11.1%
UNITED STATES	10.4%

Consumer Price Index

National-January
1967 - Base Year

Wage Earner/Clerical Worker -	292.1
% Chg. Yr. Ago	3.5
All Urban -	293.1
% Chg. Yr. Ago	3.8

Phoenix-4th Qtr.
1977 - Base Year

All Urban -	167.2
% Chg. Yr. Ago	1.0

Producer Price Index
National-January*
1967 - Base Year

All Commodities-	300.0
% Chg. Yr. Ago	0.6
Finished Goods-	283.6
% Chg. Yr. Ago	2.1

* Preliminary

A Taxing Matter

As April 15th rolls around, employers and employees alike think about taxes. Many of today's unemployed may not have to worry about paying taxes, but they would prefer to be earning taxable wages. On the other hand, many employers worry a lot about paying taxes and would like to find a way to ease the burden. Well, there is a special program that benefits both the depressed unemployed and the tax-conscious employer.

The Targeted Jobs Tax Credit (TJTC) Program was created as part of the Revenue Act of 1978. It was established to help employers, as well as those groups of people who traditionally have the most difficult time finding jobs. It is a complementary program with everyone benefiting. Employers obtain access to a pool of qualified, reliable employees and the unemployed join the working world. As an added bonus, employers receive substantial tax credits based on the amount of wages paid to the qualified workers they hire.

Just how much is the tax credit? For all targeted groups except those participating in the disadvantaged Summer Youth Program, the per-employee credit is 50 percent of the first $6,000 in wages paid during the first year of employment (maximum credit of $3,000 per employee) and 25 percent of the first $6,000 in wages paid during the second year of employment (maximum credit of $1,500 per employee). These credits apply only to employees hired into businesses. Household employees do not qualify.

Participating in the TJTC Program is relatively easy. Government agencies and other organizations that serve the targeted workers (such as CETA program sponsors, vocational rehabilitation agencies, welfare agencies, and Social Security offices) issue eligibility vouchers to their qualified clients. These clients basically fall into two groups -- the handicapped and the economically disadvantaged (particularly youths, Vietnam-Era veterans, ex-offenders, and recipients of government financial aid).

Once a client has a voucher, he or she applies for jobs and shows the voucher to the employer. After the employer decides to hire an eligible worker, he or she answers a few simple questions on the voucher and sends it into the TJTC Unit on or before the day the hired individual actually starts work. The employer, in turn, will receive a certificate form for each worker which provides all the evidence needed to claim the tax credit.

There are a few limitations to the program. For one thing, you cannot claim credit on employee wages while receiving federal government payments for on-the-job training (OJT) for the same employees. You can begin claiming credit on certified employees as soon as they complete the training, but the training period counts as part of their first year of employment. The credit is limited to 90 percent of an employer's tax liability after other applicable reductions. If you cannot claim a full credit because of this limitation, you can carry unused credit back 3 years or forward 15 years. Your business expense deduction for wages is reduced by the amount of the tax credit. Also, an employer may not receive tax credit for employees already on the payroll who may be eligible for TJTC.

Employers can find qualified TJTC workers through their local Job Service office or any agency or organization serving targeted workers. They can even specify that they want workers eligible for the Targeted Jobs Tax Credit when they place job orders with the Job Service Job Bank, (271-9666).

Employers interested in this program should hurry to take full advantage of the tax credits. The TJTC Program will terminate on December 31, 1984. A two - year credit may be claimed on employees hired before that date.

For more information, call a local Job Service office; the TJTC Cerfication Unit in Phoenix at 255-3566, or toll-free 1-800-352-5539.

- - - Max Allen

WOMAN'S WORK

"Woman's Work." The cliche may be old, but it certainly remains true for most of the country, including Arizona. We may talk about women's liberation, but the occupational distribution of women has not changed significantly for 40 years. They continue to dominate clerical and service occupations and salary levels have still not caught up with the salaries of their male counterparts.

More women than ever are in the labor force. In fact, more than half (52.9 percent as of September 1982) of all U.S. women over 20 years old were either working or looking for work. In contrast, only one-third (33.9 percent) were in the labor force in 1950. Men, on the other hand, have a decreasing rate of labor participation, 86.4 percent in 1950 compared to 79.1 percent in September 1982.

So women are working more and men less, but the pay still stays the same. Since 1940, when earning statistics began to be collected by sex, the median earnings for women who worked full time, year-round were 58 percent of the median for men. Similar figures for 1981 show women's earnings at 59 percent of the median for men.

If women's presence in the job market is at its peak, why aren't their paychecks rising as well? Wage surveys consistently verify that

Table 1
Stuck in a Rut
(Women as % of All Workers)

	1972	1980
Bank Tellers	87.5%	92.7%
Billing Clerks	84.6	90.2
Bookkeepers	87.9	90.5
Child Care Workers, exc. Private	95.8	96.1
Dressmakers & Seamstresses, exc. Factory	97.0	97.2
Keypunch Operators	89.8	95.9
Practical Nurses	96.5	97.3
Prekindergarden/Kindergarden Teachers	96.8	98.4
Secretaries	99.1	99.1
Typists	96.1	96.9

. . . Or Fear to Tread

	1972	1980
Blue Collar Supervisors, not elsewhere classified	6.9	10.8
Construction Laborers	.5	2.8
Firefighters	.5	1.3
Machinists & Jobsetters	.6	4.0
Mail Carriers, Post Office	6.7	11.1
Mechanics, Auto	.5	.7
Mechanics, Other than Auto	1.0	2.6
Metalcraft Workers	1.9	3.9
Mine Operatives	.7	2.8
Truck Drivers	.6	2.2

earnings are highly correlated with the occupation in which a worker is employed. And where do women tend to cluster? . . . generally in low-paying occupations in low-paying industries.

Using national numbers of the U.S. Bureau of Labor Statistics, Table 1 shows that the majority of women have seemed to remain in traditional women occupations and ignore the mechanical and structural jobs where men gravitate. Wages tend to shift accordingly. For example, in 1950 over half of all bank tellers (54.8 percent) were men, but by 1980 less than 7 percent could be found in a teller's cage. Where did they go? Probably the same place as the men who used to be employed in the jobs in Table 2 on page 4.

Yesterday's nontraditional jobs are becoming traditional jobs for those occupations in Table 2, as women shifted from the minority to the majority in 1980. Are women, then, capturing the big paychecks? For the most part, no. Some of these jobs are often held part-time, and many pay off in the status of the job title rather than in dollars.

So is there any hope for women to be high-rollers? There is a segment of working women that is making headway in earnings. In 1979 statistics began to be collected for weekly earnings by age. At that time women aged 16 to 24 earned 76 percent as much as men in the same group. By 1982 they earned 82 percent as much. Another study points to today's young women graduates as future monetary winners.

A survey was conducted in 1980 by the University of California at Los Angeles and the American Council on Education which was based on questionnaires completed by 291,491 freshmen entering 540 two- and four-year colleges and universities. They statistically adjusted their results to

Table 2
The Great Divide
(Women as % of All Workers)

	1972	1980
Assemblers	46.7%	53.7%
Checkers, Examiners & Inspectors (mfg.)	48.5	51.6
Computer & Peripheral Equip. Operators	37.8	59.8
Editors & Reporters	41.1	50.0
Estimaters & Investigators, not elsewhere classified	43.4	56.2
Insurance Adjusters, Examiners & Invest.	34.3	57.5
Managers & Superintendents, Building	42.6	54.5
Office Managers, not elsewhere classified	41.9	66.6
Real Estate Agents & Brokers	36.7	50.7
Secondary School Teachers	49.8	52.1

represent the nation's 1.7 million full-time freshmen. What they found was that more than one college woman in four is planning a career in business, engineering, law, or medicine. This represents more than a 400 percent increase since 1966. On the other hand, the percentage of men pursuing these four careers has risen very little during the same period. Also, as Gail Sheehy points out in her book Pathfinders, of the 50,000 MBA's entering the labor market each year, one-quarter to one-third are now women. So where did women stand in 1980 in their new battleground? See table 3 below.

While women's presence in 1980 is not overwhelming in the target jobs in table 3, Rome was not built in a day. It does, though, show that women are making a move into professional, technical, and managerial occupations at a faster pace than into blue collar mechanical or structural jobs. It will take more current statistics to reveal the real impact that is forecasted for the 1980's. By the time 1985 estimates are released, the picture could be considerably different. Time will tell.

- - - Margaret Coulter

Table 3
Forging New Fields
(Women as % of All Workers)

	1972	1980
Accountants	21.7%	36.2%
Bank Officers & Financial Managers	19.0	33.6
Civil Engineers	.6	3.3
Computer Specialists	21.7	36.2
Dentists	1.9	5.0
Drafters	6.3	8.7
Electrical & Electronic Technicians	5.5	12.3
Industrial Engineers	2.4	8.6
Lawyers & Judges	3.8	4.2
Life and Physical Scientists	10.0	20.3
Pharmacists	12.7	25.0
Physicians, Medical & Osteopathic	10.1	13.4
Purchasing Agents and Buyers, not elsewhere classified	13.3	28.3
Sales Representatives, Manufacturing	6.8	18.9
Stock & Bond Sales Agents	9.9	16.4

A TALE OF TWO CITIES (PLUS ANOTHER 23)

There may be a million and a half people living in Maricopa County, but they definitely don't all live alike. Some choose to cluster with the masses in the Capitol city, while others move an arm's length to the suburbs. Still others flee the urban setting and nestle in small rural communities on the outskirts.

At the time of the census, there were only three cities in the county with populations over 100,000: Phoenix, Mesa, and Tempe (although Glendale and Scottsdale weren't far behind). While there may not be a lot of large cities in the county, 82 percent of its residents choose to live in one of these five cities. But these communities are not statistically the same.

Scottsdale stands out from the five in a few respects. The smallest of the five, Scottsdale has an older population that lives in smaller households, but with much more money. Tempe has the youngest population of the five, and the second highest median family income. Glendale comes in third for income but has the greatest number of persons-per-household. While Mesa has the lowest median family income, it has the

Characteristics of Selected Communities in Maricopa County, 1980*

	Population	Median Family Income (1979)	Median Age	% Under 18 Years	% 65 Years and Over	Persons Per Household
MARICOPA COUNTY	1,509,052	$20,480	29.7	28.1%	11.6%	2.73
Buckeye	3,434	17,401	27.5	32.8	9.2	2.90
Cashion	3,014	11,975	21.6	42.6	6.5	4.13
Cave Creek	1,589	22,667	38.2	21.9	13.7	2.41
Chandler	29,673	19,300	25.3	34.9	6.1	3.13
El Mirage	4,307	12,290	19.8	45.4	4.3	4.29
Fountain Hills	2,771	26,731	40.4	21.9	12.6	2.65
Gila Bend	1,585	16,016	26.5	32.6	7.4	2.84
Gilbert	5,717	18,726	23.1	42.8	4.0	3.76
Glendale	97,172	21,215	27.5	31.8	7.0	2.92
Goodyear	2,747	19,727	25.6	27.6	6.3	2.79
Guadalupe	4,506	11,891	19.4	46.6	4.7	4.92
Litchfield Park	3,657	32,354	35.9	30.2	8.0	2.99
Mesa	152,453	20,347	28.1	30.1	11.2	2.80
Paradise Valley	11,085	50,060	37.4	31.0	7.6	3.19
Peoria	12,251	16,852	31.8	29.1	19.4	2.75
Phoenix	789,704	20,365	28.9	29.0	9.3	2.74
Scottsdale	88,412	26,155	36.0	23.0	12.3	2.55
Sun City	40,505	18,276	69.9	0.1	74.1	1.77
Sun City West	2,750	21,658	63.4	0.6	39.2	1.97
Sun Lakes	1,925	18,641	62.4	0.3	35.6	1.94
Surprise	3,723	10,465	20.3	43.4	4.4	4.16
Tempe	106,743	23,776	25.2	24.7	4.7	2.73
Tolleson	4,433	13,503	23.0	39.0	6.9	3.68
Wickenburg	3,535	15,347	54.1	18.3	33.6	2.09
Youngtown	2,254	10,869	71.6	1.4	69.4	1.63

*Only communities surveyed in all the above characteristics are listed in this table.

U.S. Department of Commerce, Bureau of the Census, General Population Characteristics.

second largest population in both size as well as its portion over age 65.

While these five cities encompass the majority of the county's residents, they can't compete in other areas. A play on words gives Youngtown the oldest median age for the county, and the second largest population of residents 65 years and over. Sun City boasts the lead in those over 65 but its sister community, Sun City West, beats all the retirement communities for median family income.

While Sun City, Sun City West, Sun Lakes, and Youngtown are widely touted as retirement centers, Wickenburg and Peoria also have a large percent of their population over 65 years.

The communities with the youngest median age were Guadalupe and El Mirage. They also had the greatest percent of their population under 18 years, and the greatest number of persons-per-household.

It must be paradise where the median family income exceeds $50,000, and that's just what Paradise Valley's did in 1979. (Income data were collected a year earlier than the rest of the census stats.) Even spreading the money across the entire population of Paradise Valley, it comes out on top for per-capita income at $17,256. Not even a close second in median income was Litchfield Park with $32,354. But body-for-body, Sun City West and Fountain Hills post high per-capita incomes with $12,658 and $12,430 respectively.

The lowest median income was in Surprise, which also had one of the greatest person-per-household breakdowns. The next lowest income was in Youngtown, but the number of persons-per-household was the lowest in the county so fewer had to share the dollars.

All-in-all, the county as a whole measures up younger, wealthier, and less crowded when compared to the nation as a whole. The national average median age was 30.3 years, the median family income $16,553, and the number of persons-per-household was 2.86.

- - - Margaret Coulter

AN IMPROVED CONSUMER PRICE INDEX IN 1983

Changes in the CPI provide the most familiar indicator of the rate of inflation, and as such it serves as a guide to public policy. In addition, the CPI serves as the basis for indexing--or adjusting for changes in the cost of living--both private contracts such as wage agreements and public programs such as social security payments. The importance of the CPI was increased further with the passage of the Economic Recovery Tax Act of 1981 (ERTA) since the CPI will be used to index individual income tax.

While the importance of the CPI has increased, its appropriateness as a measure of the general price level has come under increasing scrutiny during the recent prolonged period of rapid inflation. Many of the questions about its appropriateness involve the home ownership cost component of the index, which currently includes house prices, mortgage interest rates, property taxes and insurance, and maintenance costs. Among these elements, it is the treatment of house prices and mortgage interest costs that have accounted for the questionable performance of the CPI.

The fundamental difficulty with the present measure of home ownership costs in the CPI is that it is conceptually a mixture of two aspects of housing expenditures--a flow of shelter services aspect and an asset investment aspect. Because of the asset aspect of the present treatment, part of the rise in home ownership costs in the CPI-U occurs as house buyers pay to purchase an investment in home equity appreciation, in addition to their purchase of housing services. This treatment has led, in a period of inflation and rising interest rates, to an overstatement by the CPI-U of the true rise in the cost of living.

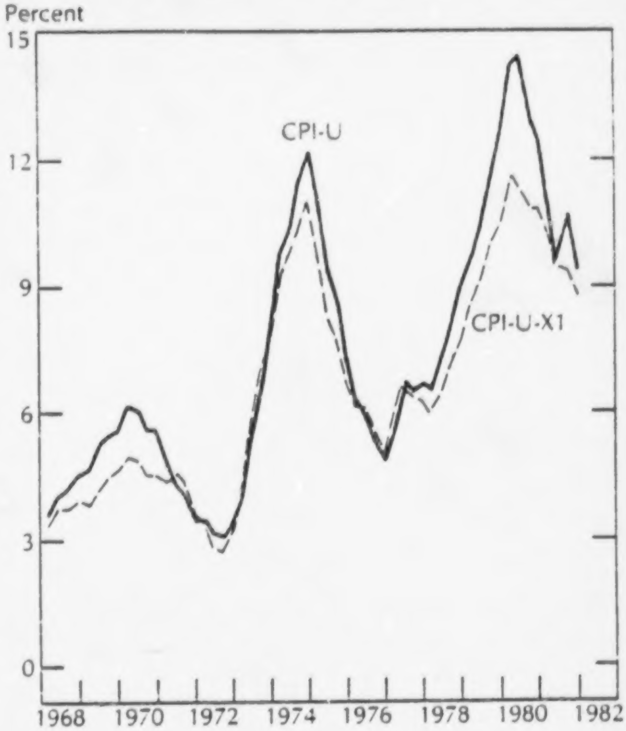
The Bureau of Labor Statistics (BLS), which produces the CPI, has not been unaware of the problems with the index's present treatment of home ownership costs. The BLS has long favored a CPI that would use the implicit cost of the flow-of-shelter services from owner-occupied housing as the measure of home ownership costs. This flow-of-services approach recognizes that--just as a renter consumes (and pays for) housing services while residing in a rented house or apartment--a home owner consumes (and incurs the implicit costs of) shelter and other living accommodations provided by this house.

For some time the BLS has published several experimental measures of the CPI using alternative approaches to home ownership costs. One of these approaches is known as the "rental equivalence" approach, in which the home ownership component of the CPI-U is replaced by a flow-of-services form of pricing. This approach holds that the cost of owning a house is indicated by the rent the owner would have to pay to reside there. When that substitution is made, the total index is identified by the BLS as the Consumer Price Index for All Urban Consumers, Experimental Measure Number One (CPI-U-X1).

The improved CPI-U to be published beginning with data for January 1983 will be very similar to the present CPI-U-X1, but with a refinement of the present measure of rental equivalence intended to overcome some of its weaknesses. For example, the present residential rent measure uses a sample that is not representative of most owner-occupied housing units--it is heavily influenced by multifamily structures, and does not match the quality and geographic distribution of owner-occcupied houses. The BLS is addressing the limitations of the current rental equivalence measure, and will continue to make improvements after the 1983 change.

Chart 1
CONSUMER PRICE INDEX, ALL URBAN CUSTOMERS (CPI-U) AND EXPERIMENTAL MEASURE NUMBER ONE (CPI-U-X1)

(Percent Change from Four Quarters Earlier)



The flow-of-services approach to the cost of home ownership incorporated through the use of rental equivalence in the CPI-U-X1 resulted in a measure that showed a slower rate of increase in consumer prices than the CPI-U over most of the past decade--and certainly during periods of peak inflation rates (see Chart 1). It has been suggested that the change to a rental equivalence approach will continue to reduce the volatility of the CPI, thus permitting it to be a better guide to public policy. In any case, the conceptual reasons for the change appear to justify it as an operationally adequate means for improving the most widely watched and used measure of the general price level.

This article is composed of excerpts from the Financial Letter, Vol. 81, No. 7, Federal Reserve Bank of Kansas City.

February 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Feb.* 1983	Jan. 1983	Feb. 1982	Jan. to Feb.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1344.1	1330.2	1300.5	+13.9	+43.6
Total Unemployment	146.1	143.8	108.2	+2.3	+37.9
Rate	10.9	10.5	8.3	---	---
Rate (Sea. Adj.)**	10.8	10.6	8.3	---	---
Total Employment	1198.0	1186.4	1192.3	+11.6	+5.7

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1037.2	1027.2	1037.6	+10.0	-0.4
Manufacturing	148.0	148.0	157.1	+0.0	-9.1
Durable Goods	114.0	114.0	122.7	+0.0	-8.7
Stone, Clay and Glass	5.1	4.9	5.3	+0.2	-0.2
Primary and Fabricated Metals	14.0	14.0	17.0	+0.0	-3.0
Primary Metals	6.5	6.5	9.1	+0.0	-2.6
Fabricated Metals	7.5	7.5	7.9	+0.0	-0.4
Machinery	59.2	59.5	62.2	-0.3	-3.0
Other Durable Goods	35.7	35.6	38.2	+0.1	-2.5
Aircraft and Missiles	16.8	16.7	18.4	+0.1	-1.6
Lumber and Wood Products (Except Furniture)	4.9	4.9	4.9	+0.0	+0.0
All Other Durable Goods	14.0	14.0	14.9	+0.0	-0.9
Nondurable Goods	34.0	34.0	34.4	+0.0	-0.4
Food and Kindred Products	8.3	8.6	8.3	-0.3	+0.0
Apparel	5.0	5.0	5.2	+0.0	-0.2
Printing and Publishing	11.7	11.7	11.3	+0.0	+0.4
All Other Nondurable Goods	9.0	8.7	9.6	+0.3	-0.6
Mining and Quarrying	15.3	15.7	21.4	-0.4	-6.1
Copper Mining	12.4	12.8	18.3	-0.4	-5.9
Other Mining and Quarrying	2.9	2.9	3.1	+0.0	-0.2
Construction	66.0	66.0	62.9	+0.0	+3.1
Trans., Communications, and Public Utilities	55.7	55.9	56.5	-0.2	-0.8
Transportation	23.5	23.4	23.8	+0.1	-0.3
Communications and Public Utilities	32.2	32.5	32.7	-0.3	-0.5
Trade	257.7	258.0	253.8	-0.3	+3.9
Wholesale Trade	51.5	51.7	51.7	-0.2	-0.2
Retail Trade	206.2	206.3	202.1	-0.1	+4.1
General Merchandise and Apparel	37.8	38.8	38.6	-1.0	-0.8
Food Stores	33.1	33.2	32.5	-0.1	+0.6
Automotive and Service Stations	24.1	24.1	24.0	+0.0	+0.1
Eating and Drinking Places	70.8	69.6	67.1	+1.2	+3.7
Other Retail Trade	40.4	40.6	39.9	-0.2	+0.5
Finance, Insurance, and Real Estate	61.8	61.8	61.3	+0.0	+0.5
Services and Miscellaneous	223.7	222.7	219.4	+1.0	+4.3
Hotels and Other Lodging Places	23.4	23.0	23.2	+0.4	+0.2
Business Services	40.4	40.5	40.3	-0.1	+0.1
Health Services	62.0	61.8	59.9	+0.2	+2.1
Other Services	97.9	97.4	96.0	+0.5	+1.9
Government	209.0	199.1	205.2	+9.9	+3.8
Federal	37.8	38.0	36.8	-0.2	+1.0
State and Local	171.2	161.1	168.4	+10.1	+2.8
School	106.1	96.0	102.7	+10.1	+3.4

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

February 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Feb.* 1983	Jan. 1983	Feb. 1982	Jan. to Feb.	1982 to 1983	Feb.* 1983	Jan. 1983	Feb. 1982	Jan. to Feb.	1982 to 1983
820.0	812.8	797.5	+7.2	+22.5	251.4	249.0	238.0	+2.4	+13.4
70.1	70.4	52.6	-0.3	+17.5	28.1	27.2	19.1	+0.9	+9.0
8.5	8.7	6.6	---	---	11.2	10.9	8.0	---	---
8.5	8.5	6.6	---	---	11.1	10.8	8.0	---	---
749.9	742.4	744.9	+7.5	+5.0	223.3	221.8	218.9	+1.5	+4.4

T BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

661.8	655.5	660.4	+6.3	+1.4	192.4	191.2	189.5	+1.2	+2.9
106.8	106.8	113.9	+0.0	-7.1	25.4	25.2	25.5	+0.2	-0.1
83.8	84.0	91.0	-0.2	-7.2	20.6	20.5	20.7	+0.1	-0.1
3.2	3.0	3.2	+0.2	+0.0					
9.0	9.2	10.8	-0.2	-1.8					
46.8	47.1	50.4	-0.3	-3.6					
24.8	24.7	26.6	+0.1	-1.8					
23.0	22.8	22.9	+0.2	+0.1	4.8	4.7	4.8	+0.1	+0.0
5.7	5.9	5.9	-0.2	-0.2					
2.2	2.2	2.3	+0.0	-0.1					
8.7	8.6	8.3	+0.1	+0.4					
6.4	6.1	6.4	+0.3	+0.0					
0.6	0.6	0.4	+0.0	+0.2	3.3	3.7	5.4	-0.4	-2.1
45.1	45.1	43.6	+0.0	+1.5	12.2	12.3	10.9	-0.1	+1.3
34.9	35.1	35.3	-0.2	-0.4	8.9	8.9	9.0	+0.0	-0.1
15.0	15.0	15.2	+0.0	-0.2	4.0	4.0	4.0	+0.0	+0.0
19.9	20.1	20.1	-0.2	-0.2	4.9	4.9	5.0	+0.0	-0.1
172.6	173.0	170.1	-0.4	+2.5	43.0	43.3	42.5	-0.3	+0.5
40.7	40.9	40.6	-0.2	+0.1	5.7	5.8	6.0	-0.1	-0.3
131.9	132.1	129.5	-0.2	+2.4	37.3	37.5	36.5	-0.2	+0.8
23.8	24.6	24.5	-0.8	-0.7	7.2	7.4	7.3	-0.2	-0.1
21.3	21.3	20.9	+0.0	+0.4	5.3	5.3	5.2	+0.0	+0.1
14.6	14.6	14.4	+0.0	+0.2	4.3	4.3	4.3	+0.0	+0.0
44.7	43.9	42.2	+0.8	+2.5	13.0	13.0	12.8	+0.0	+0.2
27.5	27.7	27.5	-0.2	+0.0	7.5	7.5	6.9	+0.0	+0.6
48.0	47.9	48.0	+0.1	+0.0	8.8	8.8	8.3	+0.0	+0.5
149.3	148.3	145.9	+1.0	+3.4	43.9	43.8	42.8	+0.1	+1.1
14.7	14.1	14.6	+0.6	+0.1	3.4	3.4	3.4	+0.0	+0.0
32.8	32.9	33.2	-0.1	-0.4	6.0	6.0	5.6	+0.0	+0.4
41.1	40.9	39.5	+0.2	+1.6	13.5	13.6	13.2	-0.1	+0.3
60.7	60.4	58.6	+0.3	+2.1	21.0	20.8	20.6	+0.2	+0.4
104.5	98.7	103.2	+5.8	+1.3	46.9	45.2	45.1	+1.7	+1.8

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

Nonmetropolitan Counties Labor Force and Employment

February 1983 (preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,200	29,175	34,625	17,025	9,375	3,400	5,000
Total Unemployment	3,100	4,200	4,075	5,625	2,600	350	1,025
Rate	20.4%	14.4%	11.8%	33.0%	27.7%	10.3%	20.8%
Rate (Seas. Adj.)**. . . .	19.6%	14.0%	11.0%	31.8%	27.3%	9.9%	INA%
Total Employment	12,100	24,975	30,550	11,400	6,775	3,050	3,975

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL WAGE AND SALARY . . .	12,650	20,725	29,150	9,350	4,350	3,000	2,325
Manufacturing	375	1,350	2,225	1,250	100	325	50
Mining and Quarrying	25	375	50	1,600	75	1,600	0
Construction	1,525	650	975	225	150	25	75
Trans., Comm., & Pub. Util..	1,700	1,375	2,425	300	175	50	50
Trade	1,000	4,000	6,825	1,775	1,350	300	800
Fin., Insur., & Real Estate.	125	550	750	225	125	25	125
Services and Miscellaneous .	2,875	2,675	6,025	1,575	625	75	625
Government	5,025	9,750	9,875	2,400	1,750	600	600

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,850	24,525	34,125	9,200	32,925	35,325
Total Unemployment	4,075	4,650	6,800	2,100	4,000	5,200
Rate	17.8%	19.0%	19.9%	22.8%	12.1%	14.7%
Rate (Seas. Adj.)**. . . .	17.3%	17.7%	20.0%	25.6%	11.0%	INA
Total Employment	18,775	19,875	27,325	7,100	28,925	30,125

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY . . .	14,675	15,750	23,650	7,150	17,700	22,500
Manufacturing	2,100	1,275	2,300	725	2,000	1,725
Mining and Quarrying	275	1,125	5,225	25	1,000	75
Construction	925	575	575	175	1,025	1,750
Trans., Comm., & Pub. Util..	925	1,600	950	525	825	950
Trade	4,300	3,250	3,750	3,050	4,450	7,275
Fin., Insur., & Real Estate.	600	300	575	250	750	650
Services and Miscellaneous .	2,375	3,425	2,075	925	3,375	3,850
Government	3,175	4,200	8,200	1,475	4,275	6,225

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Arizona Labor Force and Employment for Revenue Sharing and Grant Applications

February 1983 (preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,338,984	1,187,779	151,205	11.3%
Apache	15,207	11,988	3,219	21.2
Cochise	29,090	24,740	4,350	15.0
Coconino	34,496	30,266	4,230	12.3
Gila	17,114	11,289	5,825	34.0
Graham	9,400	6,713	2,687	28.6
Greenlee	3,393	3,034	359	10.6
La Paz	5,021	3,946	1,075	21.4
Maricopa	815,831	743,291	72,540	8.9
Mohave	22,819	18,609	4,210	18.4
Navajo	24,507	19,687	4,820	19.7
Pima	250,396	221,273	29,123	11.6
Pinal	34,109	27,074	7,035	20.6
Santa Cruz	9,216	7,041	2,175	23.6
Yavapai	32,800	28,658	4,142	12.6
Yuma	35,585	30,170	5,415	15.2

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators.

Estimated Hours and Earnings of Production Workers in Selected Industries in Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	FEB.* 1983	JAN. 1983	FEB. 1982	FEB.* 1983	JAN. 1983	FEB. 1982	FEB.* 1983	JAN. 1983	FEB. 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	347.69	346.81	333.50	39.6	39.5	38.6	8.78	8.78	8.64
Aircraft & Missiles	480.48	480.24	420.29	42.9	43.5	39.8	11.20	11.04	10.56
Food & Kindred Products	316.68	331.66	284.71	39.0	41.2	40.1	8.12	8.05	7.10
Primary Metals	459.30	456.61	438.92	38.5	38.5	38.3	11.93	11.86	11.46
Machinery	323.05	318.40	291.46	39.3	38.5	38.4	8.22	8.27	7.59
Copper Mining	492.94	523.30	479.13	37.6	40.1	38.3	13.11	13.05	12.51
Construction	467.54	473.24	407.21	36.3	36.6	31.3	12.88	12.93	13.01
Utilities	471.24	471.24	423.02	42.0	42.0	41.8	11.22	11.22	10.12
Retail Trade**	204.18	204.90	202.99	33.2	33.7	32.9	6.15	6.08	6.17
Wholesale Trade	332.24	332.24	314.41	39.6	39.6	39.4	8.39	8.39	7.98

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/82)

THE ARIZONA LABOR FORCE IN FEBRUARY 1983

For the past few months, Arizona's economy has been showing signs of recovery. While definite weakness remains in the manufacturing and mining industries, expanding construction activity coupled with increased employment in retail trade and tourism have helped to reduce the unemployment rate. That trend was reversed in February. A generally stagnant economy during the month did not help the less-than-usual hiring that occurred in February.

February characterized the type of economic situation we expect to exist during most of 1983. While unemployment had declined from 11.2 percent in October to 10.6 percent in January, that improvement could not be sustained and the unemployment rate rose. In particular, manufacturing is still in serious condition. No employment increases have been recorded since August 1981. Much of the trouble remains in our electronics firms. While some sectors showed growth during the month, seasonal losses by food processors and the loss of 300 jobs in electronics manufacturing left employment unchanged. As well, an additional 400 copper mining jobs were lost, all in Pima County. This loss will be offset next month by the return of miners in Ajo, but the industry has not yet reached stabilization.

In construction, after four months of steady employment increases, no change was noted in February. Residential construction activity was up but this was negated by losses in the nonresidential area. Following many months of falling mortgage rates, the decline has begun to slow. If a recovery in this important industry is to be maintained, continued declines in interest rates and increased job opportunities will be necessary.

Among Arizona's remaining industries, very little happened. In government, the increase in employment represented expected seasonal activity as schools reopened for the spring semester. And while winter tourism appeared to be starting strongly last month, February represented quite a different picture. The usually strong employment increases in many tourism-related businesses did not appear in February. In fact, the increase was slightly more than half of what was expected.

February was a very lackluster month and nearly every county in the state followed the same path. While it would be incorrect to say that the recovery has ended, it would be equally in error to assume that the recovery will be steady. The general direction in the unemployment rate is downward, but it will follow a sawtooth pattern. - Dan Anderson

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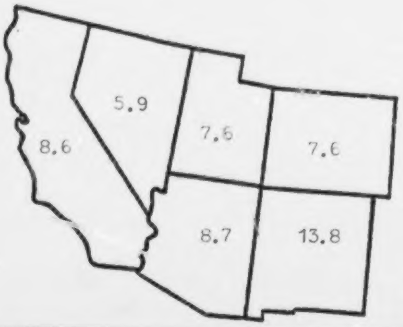


National Average	9.6
Buffalo, NY	7.6
Denver-Boulder, CO	6.2
Houston, TX	8.3
Los Angeles-Long Beach, CA	10.1
Minneapolis-St Paul, MN	4.4
New Orleans, LA	14.6
PHOENIX, AZ	6.2
Pittsburgh, PA	5.7
San Diego, CA	8.2
Washington, DC	6.1

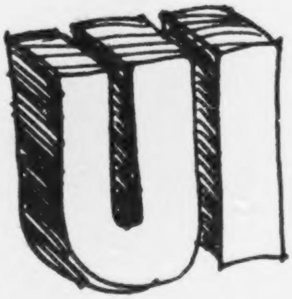
% Families Below Poverty in 1980

Source: U.S. Department of Commerce, Bureau of the Census.

UNEMPLOYMENT INSURANCE "EXHAUSTEES"

The purpose of the Unemployment Insurance (UI) program is to protect workers against what President Franklin Roosevelt described as one of "the great disturbing factors in life" - the loss of a person's job due to economic conditions. Many UI claimants, however, collect all the benefits to which they are entitled before being able to find suitable employment; i.e., they "exhaust" all of their benefits. The UI Research and Reports Section of the Arizona Department of Economic Security is currently completing a study of the almost 20,000 people who exhausted their benefits from February 1981 to January 1982. Data pertaining to these claimants' characteristics (e.g., sex and age) has been gathered, as has data regarding their labor force experiences after the time of exhaustion. The latter data was obtained with the use of survey questionnaires.

The data indicates that most of these workers were in lower income categories even before their unemployment. Approximately three-quarters of this group had base period (the first four of the five calendar quarters before the date of the claimant's filing) wages of less than $10,000. These "exhaustees" were slightly more likely to be female than were members of the UI claimant population as a whole (40.0 percent vs. 35.2 percent) and tended to be somewhat older. Among occupational groups, clerical/sales workers accounted for a larger percentage of the exhaustees than of the entire UI claimant population (23.9 vs. 19.9 percent), while structural workers accounted for a smaller percentage (23.8 vs. 30.0 percent).



The results of the survey showed that such claimants tend to stay unemployed for long periods of time even after exhaustion of their benefits. The median time of unemployment without the benefit of UI payments was approximately 19 weeks for the survey group. At the end of the six-month survey period, 48.8 percent of those responding to the survey were unemployed, 40.2 percent were employed, and 11.0 percent had dropped out of the labor force.

Fortunately during times of severe economic distress (such as now), programs are usually available which allow UI claimants to draw benefits for more than the usual 26 weeks. Arizona UI claimants can now collect payments for up to 40 weeks, due to the Federal Supplemental Compensation program that Congress created last year.

--- Bob Furgerson

Arizona Unemployment Insurance Activities

	February 1983	January 1983	February 1982	% Change From 1 Year Ago
Arizona Claimants Served**	70,881	74,624	39,095	81.3%
Arizona Weeks Unemployed***	9.7	INA	8.8	10.2%
Arizona Benefits Paid**	$ 22,093,021	$ 22,402,850	$ 10,981,916	101.2%
Arizona Trust Fund Balance	$189,971,130	$199,188,086	$279,495,499	- 32.0%

*Estimated **All Programs ***UI Only

NEW DEVELOPMENTS

Construction - A $2.5 million distribution center is being built at the Reywest Industrial Center for Pep Boys, Manny, Moe & Jack of California. The 106,000-square-foot building is located on 5 acres at 43rd Ave and W. Washington in Phoenix.

Monte Vista, an 825-space travel-trailer resort, is being developed at Baseline and Ellsworth roads in Mesa. The 80-acre site will feature larger-than-usual lots, low-density spacing, recreation and craft centers, two swimming pools, a meditation center, health-spa facilities, and a 24-hour security system.

Correction - The article "Where Snowbirds Roost" in February's NEWSLETTER mistakenly listed Mesa as having the third largest nonpermanent resident population of any incorporated community in the United States. In fact Mesa ranks fourth, behind New York City, St. Petersburg, and Pompano Beach.

Manufacturing - Sperry's Phoenix - based Flight Systems operations recalled about 100 laid - off employees to replace those lost through attrition since the firm's earlier layoffs.

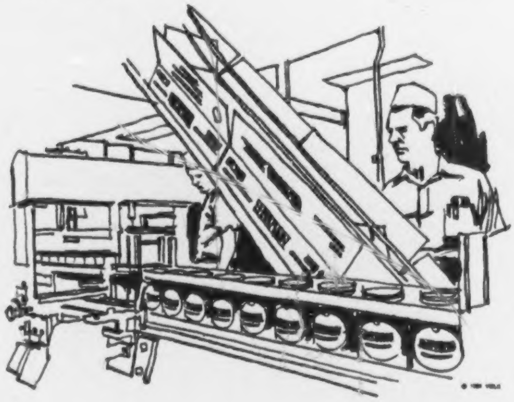
Motorola Inc. has been awarded a $4.778 million federal contract to test and deploy hardware and software for a ground-station module that will be used with an Air Force radar system. The work will be performed with existing personnel at the Motorola Government Electronics Division's radar-operations.

Shure Electronics of Arizona, which earlier announced plans to open a plant in Agua Prieta, Sonora, announced in March that it will reduce its assembly labor force in Phoenix in late summer and close the facility early in 1984. Shure Electronics, 2122 W. Cheryl Drive, manufactures stereo cartridges and cables.

About 55 plant workers were laid off on January 31 at the Casa Grande Oil Mill. The lay off represents 65 percent of the plant workers at the mill, which processes cottonseed for oil and other products. The cutbacks were made because cottonseed sellers are obtaining a higher price by selling raw seed to cattle feeders than by selling seed to be processed.

A letter of commitment has been received by Mideo Properties Ltd. from an Eastern baking company which plans to build a $15 million, 150,000-square-foot plant on 80 acres. The site is bordered on the east by Airport Road, and extends north of McDowell Road and west of 215th Avenue. It was annexed by Buckeye this year. At peak production, the plant would have 300 to 350 employees.

A new Salty Snack Foods Plant owned by Frito-Lay, Inc., Dallas, is under construction in Casa Grande. The plant is scheduled to open in 1984.



A $5 million soup and vegetable canning factory is planned for a 6-acre site west of Interstate 10 and east of North Sandario Road in Marana. Construction of the Marana Canning Co. is expected to begin in October and should be in operation by August 1984. About 50 people will be employed the first year and eventually employment could reach 200.

Mining - According to the U.S. Bureau of Mines, Arizona mineral production fell to $1.6 billion in 1982, almost $1 billion less than the preceding year. Most of the loss was in copper because of depressed markets that caused a shutdown of many mines.

Phelps Dodge called back 450 workers to its Ajo copper mine in late February. About 475 miners are still on layoff. The Ajo smelter will not be reopened, but the concentrate will be shipped to the firm's smelter in Hidalga, New Mexico.

Services - A $3 million expansion and refurbishment program is underway at the Alamos Resort at 6160 N. Scottsdale Rd. in Scottsdale. When complete, the project will nearly double the number of guest accommodations.

The Radisson Scottsdale Resort, at 7601 E. Indian Bend in Scottsdale, announced plans to double the area available for business meetings, conventions, and conferences.

Trade - The first K Mart discount department store in Douglas opened in early March and will employ more than 55 local residents.

J. Brannam, a discount fashion outlet that is part of the F. W. Woolworth Co., opened its second store in Tucson on March 30. Its location will be at 4425 N. Oracle where Jewelco Jewelers has been leasing. Jewelco closed its Oracle Road store on January 22 and consolidated it with its store at 5845 E. Broadway.

Yellow Front Stores closed its Tucson store at 8360 E. Broadway on March 1 because it has not been profitable. The store's employees were transferred to other Tucson stores.

Training Programs - The Labor Department has made a $667,000 grant to the National Tooling and Machining Association to train 400 poor or displaced workers in six states. The association will provide 12 weeks of classroom instruction and then place participants in member firms for 12 weeks of on-the-job training. In addition to machinists, the program will produce tool and die makers, moldmakers, and machine tool operators. There is one training site each in Arizona, Massachusetts, New Jersey, Ohio and two in California and New York.

NEW LMI PUBLICATIONS

The Arizona Occupational Outlook Handbook for Industrial Occupations was designed for students and counselors in the career decision making process and for adults considering career changes. It describes the nature of selected industrial careers; working conditions; employment outlook in this state; training and other qualifications; frequent lines of advancement; and earnings for occupations often found in Arizona's industries.

A Labor Market Information Position Paper has been issued in light of the new Jobs Training Partnership Act (JTPA). Entitled The New Mandate for Labor Market Information, this position paper examines the LMI requirements for supporting the Governor's implementation of JTPA, and the state employment security agencies' LMI organizations ability to meet them.

One copy of each of the above LMI publications may be obtained by writing: Labor Market Information Publications - 733A, P.O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of printing.

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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VII, No. 5
May 1983

Unemployment Rate

Seasonally Adjusted
March*

ARIZONA	10.8%
Maricopa Co.	8.5%
Pima Co.	11.1%
UNITED STATES	10.3%

Consumer Price Index

National-February
1967 - Base Year

Wage Earner/Clerical Worker -	292.3
% Chg. Yr. Ago	3.3
All Urban -	293.2
% Chg. Yr. Ago	3.5

Phoenix-1st Qtr.
1977 - Base Year

All Urban -	167.6
% Chg. Yr. Ago	0.3

Producer Price Index

National-February*
1967 - Base Year

All Commodities-	301.2
% Chg. Yr. Ago	0.9
Finished Goods-	283.7
% Chg. Yr. Ago	2.1

* Preliminary

The Status of Teaching:

Math and Science Teachers in Demand

The State Board of Education's recent move to increase the minimum requirements for graduation from high schools is focusing attention on the supply of teachers in Arizona.

The new requirements raise the amount of mathematics, science, and English courses students are required to take. According to a survey by the state Department of Education, about half of the state's 95 districts with high schools will have to double the amount of science they require and about 40 percent of them will have to increase their mathematics requirements, effective with those who are freshmen in 1983. Increasing requirements in these courses means an increasing need for teachers; there is already a shortage of mathematics and science teachers in Arizona.

The increased emphasis on mathematics and science, and a corresponding need for more teachers, is not isolated to Arizona. The Reagan administration is supporting the authorization of $50 million for new programs to improve mathematics, science, and foreign-language education in schools. The House of Representatives approved a bill that authorized $425 million next year for new programs in these fields. How much money will actually be authorized is yet to be told. But it is clear that emphasis on mathematics and science education is increasing nationwide, with an accompanying need for qualified teachers.

(Continued on pg. 2)

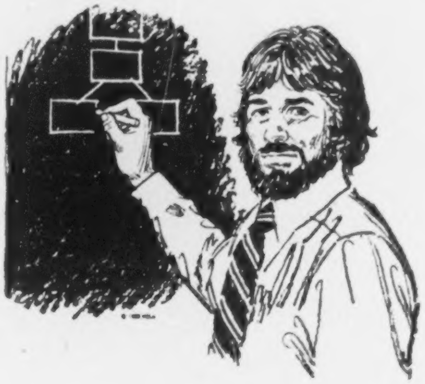
The need for increased emphasis on these subjects is rarely questioned. High technology industries require a population that is well educated in mathematics and science. These industries are important to the future economic well-being of Arizona. At the national level advanced technology is vital to remain competitive in the world economy. Japan and Russia, for example, require more mathematics and science courses of their students than do most American schools. If the United States is to keep its high economic standing, its younger generation must be prepared for the high technology world in which they will compete.

Many teachers are currently seeking employment in Arizona, but few of them are mathematics and science teachers. Some school officials are being forced to fill mathematics and science vacancies with teachers graduated in other fields.

The number of graduates from Arizona's Universities qualified to teach mathematics and science has been steadily declining during the last 10 years. Women's interest in higher paying fields, such as engineering and accounting, is one reason for the decline. Publicity about the teacher stortage has also had a negative effect on enrollment.

Private industry attracts some of the qualified mathematics and science teachers with higher pay. Research by the University of North Carolina School of Education indicates that those students who score higher on measures of academic ability are more likely to leave the field early. The research was not conclusive and is applicable only to North Carolina, but implications are not encouraging. Educators may eventually be forced to raise salaries in mathematics and science to be competitive with the private sector.

There is a surplus of teachers in most other fields in this state and nationwide. The surplus is expected to lessen at the elementary level during the next decade. Enrollments in elementary education are expected to increase in the mid 1980's as the result of a projected baby boom. The impact of the baby boom will not be felt in the secondary grades until the early 1990's. Unfortunately teachers, physical plants, and other school resources trained or designed to support one level of instruction cannot be easily retained or modified to support another.



Students entering elementary education curriculum now are expected to experience favorable employment opportunities upon graduation. Special education and industrial arts teachers are expected to continue to experience favorable employment opportunities. Teachers in mathematics and science are now in demand nationwide and the demand is expected to increase. Those currently considering careers in secondary education are encouraged to consider meeting the qualifications to teach mathematics or science.

- - - Beverly Smith

TO WORK OR NOT TO WORK

Did you know that a family living in Sun City with none of its members working in 1979 had a higher mean family income than a family in Apache County with two or more of its family members working? Also, the addition of one or more workers to a one-worker family pays off the best in Glendale where the family income will jump by $8,486. As high as Scottsdale's income looks, it doesn't pay off much to have more than one worker in the family since it will only increase the family's mean income by $4,245. In Greenlee County, one worker can make $13,653 more than if everyone sat at home, whereas, in Santa Cruz County, a family only brings in $2,665 more if someone goes out to work.

(Continued on pg. 4)

Mean Family Income by Workers in Family, 1979

	No Workers	One Workers	Two or More Workers
Apache County	$4,068	$12,802	$20,126
Cochise County	10,135	16,169	22,347
Coconino County	8,761	16,829	24,591
Flagstaff	12,272	18,063	25,640
Gila County	8,911	16,534	23,494
Graham County	8,263	14,908	22,238
Greenlee County	7,612	21,265	28,033
Maricopa County	14,477	21,333	27,877
Chandler	9,381	16,644	24,929
Glendale	10,152	18,391	26,877
Mesa	12,830	19,669	26,747
Phoenix	11,076	20,403	27,584
Scottsdale	19,315	28,931	33,176
Sun City	20,466	25,840	29,059
Tempe	11,733	22,183	29,353
Mohave County	9,836	18,226	25,091
Navajo County	5,822	15,936	22,777
Pima County	14,457	19,655	26,243
Tucson	11,944	16,654	24,115
Pinal County	10,216	16,035	23,255
Santa Cruz County	15,174	17,839	22,831
Yavapai County	11,332	17,895	24,156
Yuma County	9,839	15,842	22,602
Yuma	11,680	16,878	23,761

Note: The mean family income is the total family income for the geographic area divided by the total number of families in the same area.

Source: U.S. Department of Commerce, Bureau of the Census, Advance Estimates of Social, Economic, and Housing Characteristics.

The reason some families can accumulate an income without workers has to do with government transfer of payments and investment returns. Although the majority of the income for most people is derived from wages and salaries, some people rely heavily on other income sources. The retired, unemployed, economically disadvantaged, handicapped, and investor would fall in this group. Income may flow in from such government transfer payments as unemployment insurance, food stamps, welfare assistance, social security benefits, and government pension payments. Additional income may come from interest payments, dividends received from investments, and rents from income-producing property.

Whether a family with one worker earns proportionately more than families with two or more workers depends on whether the family members are working full- or part-time, and in what industry and occupations they are found. So more workers don't always mean more money.

--- Margaret Coulter

What Inflation?

The sharpest slowdown in inflation in a decade occurred last year with prices rising only 3.9 percent nationally. That was the smallest advance in the Consumer Price Index (CPI) since the 3.4 percent advance in 1972, when the government temporarily used wage and price controls.

The Phoenix index increased even less. The over-the-year rise of 1.0 percent was the smallest gain since the index's inception in 1969. Decreases in housing and transportation costs, along with the small increase in food prices, were primarily responsible for the little gain in 1982. These three categories comprise over 80 percent of the index. The weights for the major categories, as of 1982, are shown below.

	Percent
Food	17.44
Housing	46.32
Apparel	5.34
Transportation	17.66
Medical	5.35
Entertainment	4.34
Other	3.55
	100.00

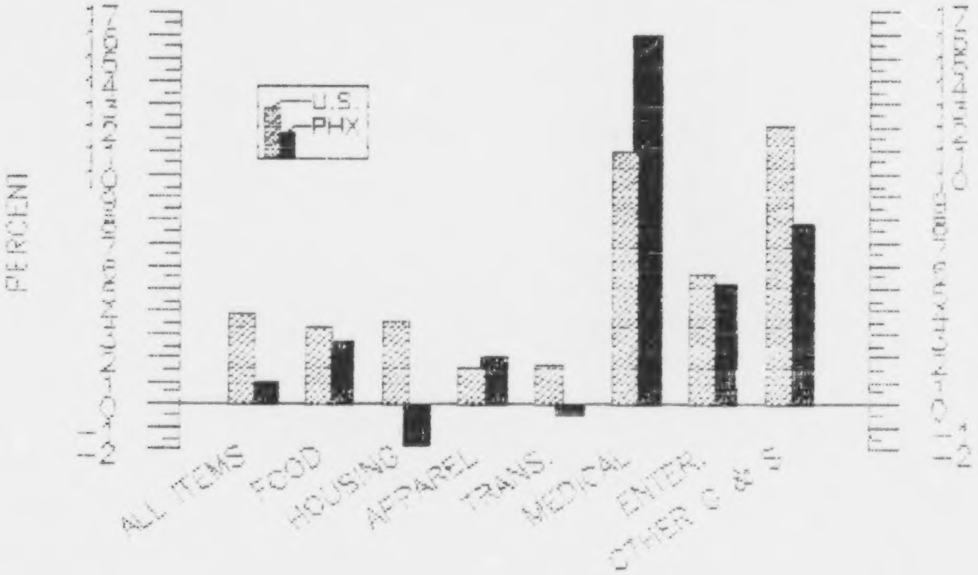
The category of Food rose slightly in 1982, only 2.7 percent. Increases were noted in meats, fish, and fresh fruits while the price of eggs and fresh vegetables decreased. The price of alcoholic beverages increased 7.9 percent for the year.

Regional trends had a significant influence on the housing index. While the nation overall posted an increase of 3.6 percent, many western cities showed decreases in housing. Phoenix, Los Angeles, San Francisco, San Diego, and Seattle all had drops in the price of housing. In Phoenix, while the cost of homeownership fell 7.0 percent, due to declining mortgage interest rates, the cost to rent increased 5.1 percent. Fuel and utilities, which are common to renter and homeowner, rose 9.7 percent.

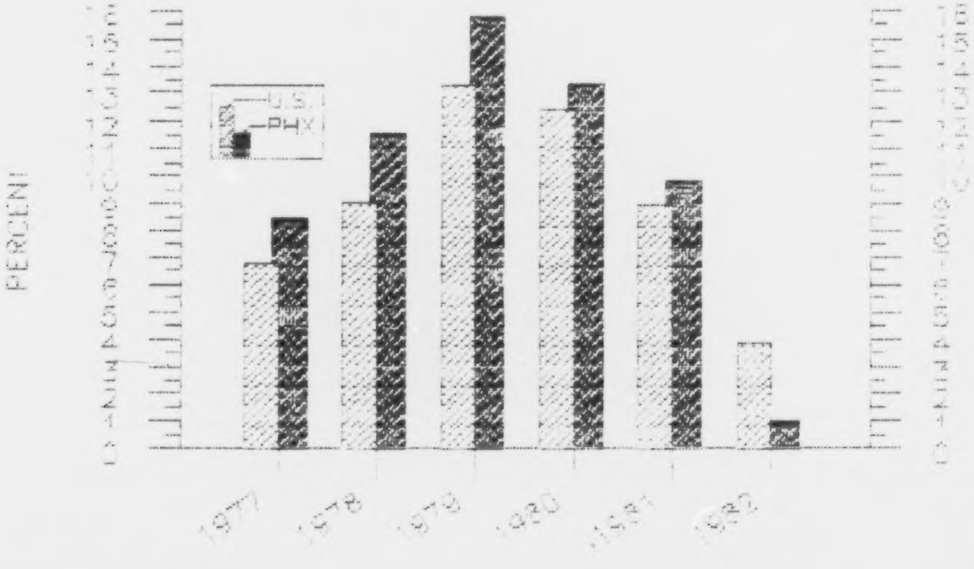
Other bright news that occurred in Phoenix was the drop in transportation costs. Decreases in the price of gasoline, vehicle finance charges, airline fares, and intercity bus fares were some of the items that brought about the decline in transportation.

The other four major categories, Apparel, Medical, Entertainment, and Other Goods and Services all posted gains. Medical costs continued to increase rapidly in both the Phoenix area and the nation. The 16.0 rise in medical costs was partly attributed to the 28.3 percent increase in hospital room expense.

U.S. CPI and Phoenix CPI, Percent Change for 1982



U.S. CPI and Phoenix CPI, Percent Increase (1977-1982)



Overall, 1982 was a very good year in regards to inflation. The outlook for 1983 is optimistic with prices rising minimally.

The CPI for the Phoenix Metropolitan area is prepared by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University in cooperative cosponsorship with Valley National Bank.

- - - Fred Ninotti

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MACHINING: OCCUPATIONS WITH FAVORABLE OPPORTUNITIES

Are you looking for a skilled or semiskilled occupation with favorable employment prospects; that can be learned in a community college, as an apprentice or sometimes on the job; that offers opportunities for advancement; and in which earnings compare favorably with other skilled or semiskilled occupations? Then consider a career in machining.

Machine tool operators use a machine tool such as a drill press, milling machine, or grinding machine to shape metal to precise dimensions. Some operators work with several tools, but most specialize in only one type. Most workers in this occupation are considered semiskilled but some are classified as skilled.

Semiskilled operators perform simple, repetitive tasks. Typically, these operators use a machine tool that has been set by skilled operators to shape metal. They depend on skilled machinery workers for major adjustments when their machines are not working properly. Although much of the work is repetitive, many machine tool operatives derive satisfaction from seeing the results of their work.

Skilled machine tool operators plan and set up the correct sequence of machining operations according to blueprints, layouts, or other instructions. They adjust the machines for each operation using their knowledge of metal properties and shop mathematics. They then shape blocks of metal into finished products, meeting precise specifications.

Indicators suggest a favorable outlook for machinists in Arizona as well as the nation. Opportunities for grinding and abrading machine operators, drill press operators, and milling and planing machine operators are also expected to be favorable. A balance between the supply and demand of lathe and turning machine operators in Arizona is expected. Nationwide employment opportunities for machine tool operators are expected to be favorable.

Employment of machinists is tied to the development of new industrial machinery rather than demand for consumer goods. Consequently, employment of machinists is relatively insensitive to the business cycle.

The work of machine tool operators is frequently tied to production of consumer goods, therefore, job opportunities are dependent on economic conditions. When demand for a factory's products slackens, production runs may be stopped or restricted, and workers may be laid off or may face a shortened workweek. Until the economy improves, jobs as machine tool operators may be difficult to find.

Machinists and machine tool operators work indoors in shops that are usually clean, well-lighted, and well-ventilated. There are hazards, including flying metal chips, abrasive dust, and sharp cutting tools. Strict safety practices are followed and protective glasses are worn.

These occupations require physical stamina, as machinists and operators usually work on their feet all day and often lift objects weighing about 25 pounds. Good eyesight is a must as well as the ability to concentrate and do precise work.

No special education is required for semiskilled jobs. Employers often look for persons with mechanical aptitude and some experience working with machinery. Courses in mathematics and blueprint reading improve employment and advancement opportunities. Some operators learn all the needed skills on the job.

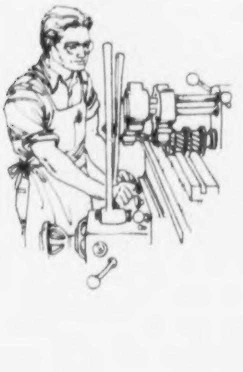
Machine tool operators face changing job requirements resulting from technological advances including automatic machine tools, new processes in metal working, and the use of powdered metals. Workers with thorough backgrounds in machining operations, mathematics, blueprinting reading, and a good working knowledge of the properties of metals will be better able to adjust to changing job requirements. These skills are also needed to advance from semiskilled to skilled positions, and eventually to all-round machinist jobs.

Becoming an all-round machinist, rather than operating a single or several machine tools, requires initiative to learn all aspects of machining. Occasionally, after years of experience, individuals become all-round machinists without formal instruction, but this is unusual.

Most all-round machinists learn their skills through a combination of work experience and formal training. Machine shop technology programs are available at many community colleges in Arizona. Placement offices at the school where the student is enrolled can help in finding suitable part-time employment.

An apprenticeship program is an excellent way to learn machining. Several programs are currently open in Arizona, but entrance is competitive. The programs last from three to four years. Applicants are required to be 18 years old, have a high school diploma or G.E.D. certificate, and the ability to perform the work. For more information, contact the Apprenticeship Information Center at 438 W. Adams in Phoenix, or call 255-5047.

All-round machinists have several opportunities for advancement. Some become supervisors. Those with business skills may open their own shop. Some take additional training and become tool-and-die or instrument workers.



Most of the machinists and machine tool operators employed in Arizona work for manufacturers. In recent years, manufacturers of nonelectrical machinery and transportation equipment employed the largest number of machinists. Manufacturers of electrical machinery, primary metals, fabricated metal products, and the public utilities also hired relatively large numbers of all-round machinists. Most of the machine tool operators employed in Arizona worked in factories that produced fabricated metal products, transportation equipment, and nonelectrical machinery.

"How much does it pay?" is a frequently asked question. Machinists employed in the metropolitan Phoenix area had estimated average hourly earnings of $8.60 in August 1982. The average wage in the Tucson metropolitan area at that time was $7.51. Wage information for machine tool operators is limited to Maricopa County. In 1982, the average hourly wage for drill press operators in that county was $6.75 and the average hourly wage for lathe operators was $8.41.

Nationally, the earnings of machinists and machine tool operators compare favorably with those of other skilled and semiskilled workers. The Bureau of Labor Statistics did a survey in 1981 of the weekly earnings for 247 occupations. Of the 247 occupations surveyed, the earnings of machinists ranked 73rd, lathe and milling operators ranked 107th, grinding machine operators ranked 116th, and drill press operators ranked 153rd. In comparison, the earnings of plumbers ranked 46th, dentists ranked 75th, truck drivers ranked 115th, kindergarten teachers ranked 157th, and cabinetmakers ranked 160th.

More information on career opportunities in the machine tool industry can be obtained by contacting:

The National Machine Tool Builders
Association
7901 Westpark Drive
McLean, Virginia 22102

- - - Beverly Smith

	ARIZONA				
				-- Amt Change --	
	Mar.* 1983	Feb. 1983	Mar. 1982	Feb. to Mar.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1349.5	1344.5	1310.1	+5.0	+39.4
Total Unemployment	144.0	145.7	111.0	-1.7	+33.0
Rate	10.7	10.8	8.5	---	---
Rate (Sea. Adj.)**	10.8	10.8	8.6	---	---
Total Employment	1205.5	1198.8	1199.1	+6.7	+6.4

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1042.6	1038.0	1038.8	+4.6	+3.8
Manufacturing	148.4	148.0	156.4	+0.4	-8.0
Durable Goods	114.5	114.1	121.9	+0.4	-7.4
Stone, Clay and Glass	5.1	5.1	5.2	+0.0	-0.1
Primary and Fabricated Metals	14.1	14.0	16.7	+0.1	-2.6
Primary Metals	6.5	6.5	8.8	+0.0	-2.3
Fabricated Metals	7.6	7.5	7.9	+0.1	-0.3
Machinery	59.3	59.3	61.9	+0.0	-2.6
Other Durable Goods	36.0	35.7	38.1	+0.3	-2.1
Aircraft and Missiles	16.9	16.8	18.4	+0.1	-1.5
Lumber and Wood Products (Except Furniture)	5.0	4.9	4.9	+0.1	+0.1
All Other Durable Goods	14.1	14.0	14.8	+0.1	-0.7
Nondurable Goods	33.9	33.9	34.5	+0.0	-0.6
Food and Kindred Products	8.3	8.3	8.3	+0.0	+0.0
Apparel	4.8	4.9	5.2	-0.1	-0.4
Printing and Publishing	11.8	11.7	11.3	+0.1	+0.5
All Other Nondurable Goods	9.0	9.0	9.7	+0.0	-0.7
Mining and Quarrying	15.7	15.3	20.9	+0.4	-5.2
Copper Mining	12.7	12.4	17.8	+0.3	-5.1
Other Mining and Quarrying	3.0	2.9	3.1	+0.1	-0.1
Construction	67.2	66.0	62.8	+1.2	+4.4
Trans., Communications, and Public Utilities	56.0	56.0	56.6	+0.0	-0.6
Transportation	23.5	23.3	24.0	+0.2	-0.5
Communications and Public Utilities	32.5	32.7	32.6	-0.2	-0.1
Trade	256.9	257.1	253.7	-0.2	+3.2
Wholesale Trade	51.4	51.5	51.8	-0.1	-0.4
Retail Trade	205.5	205.6	201.9	-0.1	+3.6
General Merchandise and Apparel	36.7	37.1	37.8	-0.4	-1.1
Food Stores	33.0	33.1	32.5	-0.1	+0.5
Automotive and Service Stations	24.1	24.1	24.0	+0.0	+0.1
Eating and Drinking Places	71.4	71.1	67.8	+0.3	+3.6
Other Retail Trade	40.3	40.2	39.8	+0.1	+0.5
Finance, Insurance, and Real Estate	61.9	61.9	61.5	+0.0	+0.4
Services and Miscellaneous	225.7	224.4	220.7	+1.3	+5.0
Hotels and Other Lodging Places	24.3	23.7	23.5	+0.6	+0.8
Business Services	41.0	40.6	40.1	+0.4	+0.9
Health Services	62.2	62.0	60.1	+0.2	+2.1
Other Services	98.2	98.1	97.0	+0.1	+1.2
Government	210.8	209.3	206.2	+1.5	+4.6
Federal	38.0	38.1	36.8	-0.1	+1.2
State and Local	172.8	171.2	169.4	+1.6	+3.4
School	107.7	106.2	103.6	+1.5	+4.1

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Mar.* 1983	Feb. 1983	Mar. 1982	Feb. to Mar.	1982 to 1983	Mar.* 1983	Feb. 1983	Mar. 1982	Feb. to Mar.	1982 to 1983
821.9	818.7	803.4	+3.2	+18.5	253.5	252.6	241.6	+0.9	+11.9
69.4	69.8	55.6	-0.4	+13.8	27.7	28.4	20.1	-0.7	+7.6
8.4	8.5	6.9	---	---	10.9	11.2	8.3	---	---
8.5	8.5	7.0	---	---	11.1	11.2	8.4	---	---
752.5	748.9	747.8	+3.6	+4.7	225.8	224.2	221.5	+1.6	+4.3

USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

663.9	661.3	660.5	+2.6	+3.4	194.6	193.3	191.1	+1.3	+3.5
106.7	106.7	113.4	+0.0	-6.7	25.8	25.4	25.6	+0.4	+0.2
83.9	83.9	90.3	+0.0	-6.4	20.9	20.6	20.9	+0.3	+0.0
3.2	3.2	3.1	+0.0	+0.1					
9.0	9.1	10.6	-0.1	-1.6					
46.8	46.8	50.0	+0.0	-3.2					
24.9	24.8	26.6	+0.1	-1.7					
22.8	22.8	23.1	+0.0	-0.3	4.9	4.8	4.7	+0.1	+0.2
5.7	5.7	5.9	+0.0	-0.2					
2.1	2.2	2.4	-0.1	-0.3					
8.6	8.6	8.3	+0.0	+0.3					
6.4	6.3	6.5	+0.1	-0.1					
0.6	0.6	0.4	+0.0	+0.2	3.7	3.3	5.4	+0.4	-1.7
45.8	45.1	43.6	+0.7	+2.2	12.6	12.3	11.0	+0.3	+1.6
35.2	35.0	35.6	+0.2	-0.4	8.7	8.8	9.0	-0.1	-0.3
15.1	15.0	15.4	+0.1	-0.3	3.8	3.9	3.9	-0.1	-0.1
20.1	20.0	20.2	+0.1	-0.1	4.9	4.9	5.1	+0.0	-0.2
171.8	172.1	169.6	-0.3	+2.2	43.1	43.1	43.0	+0.0	+0.1
40.6	40.7	40.6	-0.1	+0.0	5.7	5.8	6.0	-0.1	-0.3
131.2	131.4	129.0	-0.2	+2.2	37.4	37.3	37.0	+0.1	+0.4
23.2	23.4	24.1	-0.2	-0.9	7.0	7.0	7.3	+0.0	-0.3
21.2	21.4	20.8	-0.2	+0.4	5.3	5.3	5.1	+0.0	+0.2
14.5	14.5	14.3	+0.0	+0.2	4.3	4.3	4.4	+0.0	-0.1
44.8	44.7	42.4	+0.1	+2.4	13.4	13.2	13.2	+0.2	+0.2
27.5	27.4	27.4	+0.1	+0.1	7.4	7.5	7.0	-0.1	+0.4
48.1	48.0	48.2	+0.1	-0.1	8.8	8.9	8.4	-0.1	+0.4
150.3	149.5	146.1	+0.8	+4.2	44.6	44.3	43.4	+0.3	+1.2
15.1	14.8	14.4	+0.3	+0.7	3.6	3.6	3.6	+0.0	+0.0
33.4	32.9	32.8	+0.5	+0.6	6.0	6.1	5.7	-0.1	+0.3
41.1	41.0	39.6	+0.1	+1.5	13.8	13.6	13.3	+0.2	+0.5
60.7	60.8	59.3	-0.1	+1.4	21.2	21.0	20.8	+0.2	+0.4
105.4	104.3	103.6	+1.1	+1.8	47.3	47.2	45.3	+0.1	+2.0

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

Nonmetropolitan Counties Labor Force and Employment

March 1983 (preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,025	29,350	35,050	16,625	9,425	3,300	4,875
Total Unemployment	2,800	3,950	4,125	5,175	2,575	275	750
Rate	18.6%	13.5%	11.8%	31.1%	27.3%	8.3%	15.4%
Rate (Seas. Adj.)**. . . .	18.6%	13.5%	11.4%	30.3%	27.6%	8.9%	INA
Total Employment	12,225	25,400	30,925	11,450	6,850	3,025	4,125

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL WAGE AND SALARY . . .	12,800	21,100	29,550	9,400	4,375	2,925	2,375
Manufacturing	375	1,425	2,200	1,225	100	325	100
Mining and Quarrying	25	375	50	1,625	75	1,575	0
Construction	1,525	675	975	250	150	25	75
Trans., Comm., & Pub. Util..	1,775	1,400	2,500	300	175	50	50
Trade	1,000	4,000	6,825	1,775	1,350	300	800
Fin., Insur., & Real Estate.	125	550	775	225	125	25	125
Services and Miscellaneous .	2,875	2,700	6,250	1,600	625	75	625
Government	5,100	9,975	9,975	2,400	1,775	550	600

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,600	24,425	34,600	9,125	32,725	36,975
Total Unemployment	3,850	4,350	7,125	2,025	3,625	6,325
Rate	17.0%	17.8%	20.6%	22.2%	11.1%	17.1%
Rate (Seas. Adj.)**. . . .	16.9%	17.6%	20.9%	25.9%	10.5%	INA
Total Employment	18,750	20,075	27,475	7,100	29,100	30,650

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY . . .	14,625	15,925	23,650	7,125	17,800	22,450
Manufacturing	2,125	1,325	2,300	725	1,975	1,675
Mining and Quarrying	275	1,125	5,175	25	1,025	75
Construction	925	575	575	175	1,050	1,800
Trans., Comm., & Pub. Util..	925	1,600	950	525	825	950
Trade	4,225	3,275	3,725	3,025	4,450	7,225
Fin., Insur., & Real Estate.	600	300	550	250	750	675
Services and Miscellaneous .	2,375	3,425	2,100	925	3,400	3,850
Government	3,175	4,300	8,275	1,475	4,325	6,200

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Arizona Labor Force and Employment for Economic Assistance Programs

March 1983 (preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,342,493	1,193,710	148,783	11.1%
Apache	15,006	12,103	2,903	19.3
Cochise	29,239	25,163	4,076	13.9
Coconino	34,894	30,641	4,253	12.2
Gila	16,685	11,349	5,336	32.0
Graham	9,438	6,767	2,671	28.3
Greenlee	3,290	2,994	296	9.0
La Paz	4,854	4,077	777	16.0
Maricopa	816,855	745,215	71,640	8.8
Mohave	22,533	18,565	3,968	17.6
Navajo	24,362	19,871	4,491	18.4
Pima	252,216	223,559	28,657	11.4
Pinal	34,563	27,205	7,358	21.3
Santa Cruz	9,125	7,033	2,092	22.9
Yavapai	32,547	28,813	3,734	11.5
Yuma	36,886	30,355	6,531	17.7

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for economic assistance programs.They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Estimated Hours and Earnings of Production Workers in Selected Industries in Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	MAR.* 1983	FEB. 1983	MAR. 1982	MAR.* 1983	FEB. 1983	MAR. 1982	MAR.* 1983	FEB. 1983	MAR. 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	355.52	347.38	335.62	41.1	39.7	38.8	8.65	8.75	8.65
Aircraft & Missiles	465.89	475.08	441.84	42.2	42.8	42.0	11.04	11.10	10.52
Food & Kindred Products	319.35	316.38	283.42	41.1	39.4	39.2	7.77	8.03	7.23
Primary Metals	458.34	456.87	448.53	38.1	38.2	38.8	12.03	11.96	11.56
Machinery	319.18	323.44	287.66	39.6	39.3	38.0	8.06	8.23	7.57
Copper Mining	517.45	489.94	465.88	39.5	37.4	37.3	13.10	13.10	12.49
Construction	466.34	457.10	474.45	38.7	35.6	35.7	12.05	12.84	13.29
Utilities	478.59	478.59	421.06	43.0	43.0	41.2	11.13	11.13	10.22
Retail Trade**	196.50	211.29	204.84	31.9	34.3	33.2	6.16	6.16	6.17
Wholesale Trade	323.85	323.85	313.99	38.6	38.6	39.2	8.39	8.39	8.01

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/82)

THE ARIZONA LABOR FORCE IN MARCH 1983

Arizona's unemployment rate remained static in March at 10.8 percent. Similarly, Maricopa County's rate remained unchanged at 8.5 percent, and Pima County dropped only a tenth of a percentage point to 11.1 percent.

Despite the lack of change in rates, there were some positive signs of an improving economy in the employment estimates at last. Genuine, though not large, gains were posted by five industries: manufacturing, mining, construction, services, and government. In addition, the total unemployed dropped 1,700 to 144,000. Remarkably, Pima County, not Maricopa, enjoyed the largest reduction in unemployment. Seven hundred Pima County unemployed fell from the rolls while only 400 fewer Phoenix area residents were counted as unemployed. Most of that difference can be attributed to net gains in the copper mining industry in Pima County.

With an increase of 400 in March, manufacturing has ended a 20 month period of decline or stagnation. This may be the beginning of an upward trend that by late summer should add an additional three to four thousand people. In Maricopa County, there has been no rise yet, but the decline has ceased and improvement should be visible soon. Pima County enjoyed most of the state's net gain in manufacturing with most of it among a few major employers.

Construction, too, is inching upward. Statewide there were 1,200 new construction jobs in March. Employment gains were spread proportionately among the state's major areas. Of the 200 worker gain distributed among the nonmetropolitan counties, most of it involved new road work. The northern counties should be gaining even more in that area as winter snows melt. Nevertheless, returning to Arizona's construction employment peak in August 1979 of 90,600 will be long and arduous. The modest increases that have been experienced should not be a signal to anyone in another state to rush to Arizona for construction employment. Employment is still 23,400 jobs below its previous high.

Mining's modest 400 net gain occurred despite additional layoffs at one major firm. Further rapid gains are not expected, but improved health in the industry should result from an improving picture in construction and automobile sales.

Services was the one remaining private sector gainer. Most of the 1,300 increase was in hotel employment, but business services, particularly temporary help services had gains. The last of the winter tourism season is still having an impact. It was not a great season, but records were broken for air traffic through Arizona's terminals. That was a result of many taking advantage of low air fares as competition heated up among the now nonregulated carriers.

Overall, there's hope at last to be gleaned from employment reports. The coming months should see continuing, if not steady, improvement. - - - Ron Simon

Arizona Unemployment Insurance Activities

	March 1983	February 1983	March 1982	% Change From 1 Year Ago
Arizona Claimants Served**	67,452	70,881	43,515	+55.0%
Arizona Weeks Unemployed***	10.7	9.7	9.2	+16.3%
Arizona Benefits Paid**	$ 23,761,819	$ 22,093,021	$ 12,031,636	+97.5%
Arizona Trust Fund Balance	$175,046,144	$189,971,130	$268,689,041	-34.9%

*Estimated **All Programs ***UI Only

NEW DEVELOPMENTS

Construction - A Phoenix developer has submitted plans to the city for the construction of a $17.5 million hotel and conference center on 6 acres of city property bounded by Mill and Myrtle avenues and Third and Fifth streets in Tempe. The Sun Devil Resort Inn would include two- and three-story, terraced buildings that would house 250 hotel suites, a 30,000-square-foot conference and dining room that would seat 1,200 people and six smaller meeting rooms which would seat 40 people each.

A $2.5 million office and distribution facility will be built in Phoenix by Kalil Bottling Co., of Tucson. The facility will be on 5.5 acres at 38th Street and Interstate 10 and should be completed by July.

Manufacturing - A $20 million manufacturing complex will be built in the Pointe South Mountain business-residential community for W. L. Gore Associates. The Phoenix complex, which will be developed on the west side of Interstate 10 south of Baseline Road, will be constructed in three phases of about 50,000 square feet each. The facility will be used for the production of interconnect devices for the computer and aerospace industries. Employment should be between 150-200 people by the end of 1984.

Service Industries of America, an industrial cleaning-supplies manufacturer, has selected Tucson as the site for its corporate offices. The firm has manufacturing facilities in 38 states. It also operates an industrial plumbing-specialities manufacturing firm in seven states with a warehouse in Tucson. The firm currently employs 50 to 60 employees in Tucson.

Ross Laboratories, a division of Abbott Laboratories USA, will build a manufacturing plant in Casa Grande to produce commerical baby formula. Initially, the company will employ about 150 people.

Penn-Mor Manufacturing announced in February the closure of its clothing manufacturing plant in Cottonwood. Its 115 employees have been offered the opportunity of transferring to its Tempe plant.

Semitron Corp., a Phoenix electronics firm, closed its door March 25 due to steadily declining sales, idling 35 employees.

Asarco's Silver Bell mine, 35 miles west of Tucson, may reopen by the end of the year. The mine employed 240 hourly workers when it closed December 23, 1981.

Pinto Valley Copper Corp., a newly formed subsidiary of the New York-based Newmont Mining Corp. has acquired Cities Service Co.'s copper mining operations in Miami for $75 million cash, plus agreements that could increase the price by $30 million. All employees of the Arizona operation are being offered continued employment with Pinto Valley.

Noranda Lakeshore Mine, south of Casa Grande, laid off 18 construction workers that recently completed a project. There will be no major layoffs until the end of the year, although minor layoffs are anticipated.

Trade - Downtown Bisbee's J.C. Penney store on Main Street - the first Penney's outlet in Arizona - will close this fall after 67 years. In addition, the Chandler J. C. Penney store at 1005 North Arizona Avenue will close at the end of July after seven years of operation. This means Penneys will have closed seven stores within a year in Arizona. Stores in central Tucson, Phoenix, Clifton, Holbrook, and Miami have already closed. A J.C. Penney store is planned for a new shopping mall in Sierra Vista.

* * *

NEW TECHNOLOGY'S IMPACT ON LABOR

The use of electronic techniques for printing, containerization of cargo in waterborn transportation, and a computerized production system to fabricate I-beams are examples of innovations being adopted in industries examined in a new report by the Bureau of Labor Statistics of the U.S. Department of Labor. The study focuses on the impact of these and other innovations in five industries: Printing and publishing, water transportation, copper ore mining, fabricated structural metal, and intercity trucking.

Although the industries included in the report represent diverse activities associated with manufacturing, mining, and transportation, new technology has brought about significant changes in productivity and employment in key operations in each industry discussed. These innovations have been particularly significant in printing and publishing and water transportation, where employment requirements have been lowered for typesetters and other printing craftsworkers and for longshore and shipboard crews. Technological change has been less extensive in the other industries. All five industries are highly unionized, and examples of work force adjustments carried out under provisions of collective bargaining contracts are included in the report.

The employment outlook to 1990 is mixed in these industries, with the level projected to be higher in printing and publishing and lower in water transportation and copper ore mining. Specific data on employment for 1990 are not available for fabricated structural metal and intercity trucking.

Additional information on changing technologies and the labor implications in the five industries is available in BLS Bulletin 2137, "The Impact of Technology on Labor in Five Industries," Catalog Number 029-001-02832-0, price $5.00. This is the seventh bulletin in the technology series published by the Bureau.

The bulletin can be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Make check payable to Superintendent of Documents.

THE OUTLOOK FOR U.S. INDUSTRIES

Want to know what industries will be flourishing in the 1980's? The 1983 U.S. Industrial Outlook, published by the Bureau of Industrial Economics, shows where to expect rapid growth.

The Outlook is published at the beginning of each year as a practical desk reference for planners, researchers, and decisionmakers. This year's edition presents data and forecasts for more than 250 industries, following the standard industrial classification (SIC) system.

Each chapter includes an industry profile and examines the current state of the industry, its outlook for 1983, and long-term prospects. Much of the information is derived from the Census Bureau's economic data.

In addition, the 1983 Outlook features three analytical articles on defense spending and its impact on industry, the outlook for manufacturing in 1983, and an examination of the economic performance of U.S. industries.

The 588-page 1983 U.S. Industrial Outlook is available for $11 from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Ask for S/N 003-008-00188-2.

WORKLIFE EXPECTANCIES

The average man can expect to work about 38 years in his lifetime, while the average woman can anticipate nearly 28 years of work, according to the Bureau of Labor Statistics of the U.S. Department of Labor. However, the sex differential for average time in the labor force continues to narrow.

Two new Bureau studies examine the worklife expectancy of American workers. The first summarizes patterns of labor force entry and exit and of lifetime labor force attachment, as observed in 1970 and 1977. The second is a more detailed study which also outlines recent changes in methodology developed to improve the estimates of working life.

The Bureau's most recent working life tables show that the average man entering the labor force at age 16 had a worklife expectancy in 1977 of 38.5 years, about the same as the 38.7 year figure reported for 1970. At age 16, however, the average woman could anticipate 27.7 years of economic activity, a gain of over 5 years from the figure reported in 1970, 22.5 years. In 1970, young women could expect to work just 57 percent as many years as men; by 1977, their expectancy figure was 71 percent of men.

The summary report, "New Worklife Estimates" (BLS Bulletin 2157), $3.25, and the more complete report, "Tables of Working Life: The Increment-Decrement Model" (BLS Bulletin 2135), $5.00, may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Payment or GPO deposit account number must accompany the order.

NEW LMI PUBLICATIONS

Another issue in the series of the Arizona Occupational Outlook Handbook has been released. The latest edition focuses on Clerical Occupations. It describes the nature of selected clerical careers; as well as their working conditions, employment outlook in the state, training and other qualifications, advancement opportunities, and earnings.

Four new issues of Arizona Occupational Profiles are now available through the Occupational Employment Statistics program. The publications offer 1981 occupational employment information, staffing patterns, and future job openings of a topic industry. The latest profiles are for finance, insurance, and real estate, mining, services, and construction.

A revised job search publication, Guidelines for Teachers Seeking Employment in Arizona, is now available. The pamphlet details the contact procedures for certification, health requirements, recording procedures, and placement services.

One copy of each of the above LMI publications may be obtained free by writing: Labor Market Information Publications - 733A, P.O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of printing.

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This periodical is issued and printed by the Arizona Department of Economic Security as authorized by the Wagner-Peyser Act and is paid out of federal funds granted by the U.S. Department of Labor.

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol VII No. 6
June 1983

Unemployment Rate

Seasonally Adjusted
April*

ARIZONA	10.6%
Maricopa Co.	8.3%
Pima Co.	10.6%
UNITED STATES	10.2%

Consumer Price Index

National-March
1967 - Base Year

Wage Earner/Clerical Worker -	293.0
% Chg. Yr. Ago	3.7
All Urban -	293.4
% Chg. Yr. Ago	3.6

Phoenix-1st Qtr.
1977 - Base Year

All Urban -	167.6
% Chg. Yr. Ago	-0.3

Producer Price Index

National-March*
1967 - Base Year

All Commodities -	300.5
% Chg. Yr. Ago	0.8
Finished Goods -	283.4
% Chg. Yr. Ago	2.2

* Preliminary

Jobs in the High-Tech Industries

Arizona, it seems, is committed to the continuing seduction of high-technology firms for economic development. The commitment has advanced to a point of demanding more mathematics and science education for its youth so that there will be a skilled labor force available to the industry. There seems to be a consensus around the state that continued recruitment of high-technology firms is among the best solutions for the state's economic problems. That consensus is remarkable given the diversity of opinions on most issues up for public discussion.

When there is so much consensus it is a good idea to view the circumstances from an alternative perspective. It helps to clarify issues and to get a new orientation concerning the degree to which the proposed solution matches the problem.

In that spirit, a view of high-tech in Arizona through the lens of employment statistics offers a new focus. A wide angle view of the state as a whole frames the picture. In 1983, through March, there were 1,042,600 people earning wages and salaries. Zooming in on the manufacturing sector, of which high-tech is but a part, there were 148,400 employed, or 14.2 percent of the state's wage earners. Of that number 106,700 were located in Maricopa County, that is, 10.2 percent of the state's wage-earner total.

Top Ten Jobs of High-Tech Industries in Maricopa County

MACHINERY MANUFACTURING, EXC. ELECTRICAL

SIC	Occupation	1983 Employment	(% of SIC Total)
35	Total	17,682	(100.0%)
	Electrical & Electronic Assemblers	2,652	(15.0)
	Managers & Officers	1,619	(9.2)
	Electrical & Electronic Engineers	1,115	(6.3)
	Electrical & Electronic Technicians	820	(4.6)
	Systems Analysts, Scientific & Technical	644	(3.6)
	Machinists	569	(3.2)
	Testers	568	(3.2)
	Inspectors	522	(3.0)
	Secretaries	458	(2.6)
	Industrial Engineers	412	(2.3)
	Top Ten Jobs	9,779	53.0%

ELECTRICAL & ELECTRONIC MACHINERY MANUFACTURING

SIC	Occupation	1983 Employment	(% of SIC Total)
36	Total	30,087	(100.0%)
	Electrical & Electronic Assemblers	8,252	(27.4)
	Electrical & Electronic Engineers	2,363	(7.9)
	Managers & Officers	1,923	(6.4)
	Electrical & Electronic Technicians	1,854	(6.2)
	Supervisors, Nonworking	858	(2.9)
	Encapsulators	729	(2.4)
	Inspectors	647	(2.2)
	Secretaries	601	(2.0)
	Other Assemblers	550	(1.8)
	Other Office Clerical	460	(1.5)
	Top Ten Jobs	18,237	60.6%

ORDNANCE & AIRCRAFT & OTHER TRANSPORTATION EQUIPMENT MANUFACTURING

SIC	Occupation	1983 Employment	(% of SIC Total)
37	Total	12,632	(100.0%)
	Aeronautical Engineers	1,510	(12.0)
	Lathe and/or Turning Machine Oper. (metal)	679	(5.4)
	Managers, Office	648	(5.1)
	Inspectors	549	(4.3)
	Machinists	493	(4.1)
	Machine Assemblers	493	(3.9)
	Mechanical Engineering Technicians	479	(3.8)
	Supervisors, Nonworking	449	(3.6)
	Grinding & Abrading Machine Operators	343	(2.7)
	Secretary	281	(2.2)
	Top Ten Jobs	5,924	46.9%

In order to view the high-tech component, it may be necessary to snap on a close-up lens. High-tech industry has been operationally defined as producers of electronic components and equipment, and military and space technology. Those producers are found among the following Standard Industrial Classifications (SIC's): 35 - Machinery Manufacturing, except electrical; 36 - Electrical and Electronic Machinery Manufacturing; and 37 - Ordnance and Aircraft and other transportation equipment manufacturing. Actually, the high-tech component is even a subgroup of these, but the resolution of our statistical lens is not fine enough to make the additional distinction. Nevertheless, estimates of total employment in each of these specific industries are available. Maricopa County totals for each of the three industries are given in the table on page 2 of the "Top Ten Jobs of High-Tech Industries in Maricopa County." There are just over 60,000 jobs, or 5.8 percent of state wage and salary employment, attached to the high-tech industries.

Now, moving the subject to our electron microscope in order to view the molecular level of occupations, one can see that a significant number of the jobs therein are not high-tech either. Rather, many are clerical or semiskilled production jobs. The table of the top ten jobs of high-tech industries is a blow-up of our microscope view. If we can agree that the high-tech jobs among those shown include electrical and electronic engineers, electrical and electronic technicians, systems analysts, aeronautical engineers, and mechanical engineering technicians, then the high-tech component is reduced to little more than 17,000 jobs, or 1.6 percent of the state total.

Granting that there are some additional high-tech jobs in Pima and maybe other counties, and that there are some in other industries, the total would still remain very small relative to the total number of jobs in Arizona. The point in taking this perspective is that while romance with high-tech may be a good solution to some of Arizona's economic problems, it is far from a sufficient solution. It remains a significant fact that nearly half the state's labor force is employed in the trade and services industries. Projections indicate that will continue to be true, and that the greater majority of the state's new jobs will be in these two industries. If educators and government administrators speak as though all youth and unemployed must be retrained or retooled for high-tech jobs, there are going to be many whose expectations will be disappointed. We may end up with a repeat of the kind of disappointment many suffered who believed getting a college education was a guarantee of access to "the good life." It would be better to confront the reality of Arizona's labor market as it is now, and as it will be in the future. Although high-tech will become more important in the market in future years, it will not become the majority employer. Rather, it will be just a slightly more significant minority employer.

All of this is not to argue that more math and science for students is not a worthy undertaking. It is a worthy objective for reasons other than the need to train a technical labor force. It may be wise to present those other reasons in addition to, or instead of, promising rewards through high-tech jobs. Then, if the high-tech jobs are achieved, that's just gravy.

- - - Ron Simon

PROGRAMMER, ANALYST SHORTAGE: FACT OR FICTION

There has been much discussion regarding the nationwide shortage of computer programmers and systems analysts. Scores of articles appearing in magazines and journals seem to echo the concerns of industry executives about this shortage. The Sunday newspapers are filled with several pages of help-wanted ads to recruit computer personnel. Why, then, are there so many individuals looking for computer programming and systems analyst jobs in Arizona?

Location seems to be the key to the shortage of both computer programmers and systems analysts. Arizona's favorable climate provides our state's employers with a distinct advantage over employers in most other areas of the country in recruiting personnel. Numerous potential employees have either moved to Arizona and are looking for jobs or would be eager to relocate to sunny Arizona.

The prolonged economic downturn has further increased the supply of data processing workers in Arizona. Gerald Pater, Project Manager for the Data Center at the State of Arizona's Department of Administration, concurred with other employers by saying "Right now, because of the layoffs that have occurred in some of the larger data centers in Phoenix, there is an oversupply of both computer programmers and systems analysts." The table below compares 1982 employment to unemployment and the number of post-secondary graduates for each occupation:

	1982 Employment	1982 Unemployment	1982 Unemployment Rate	1982 Post-Secondary School Graduates	1982 Graduates to Openings Ratio
Computer Programmers	2,898	143	4.3%	944	3.8
Systems Analysts	2,750	94	2.8%	201	0.9

The number of individuals looking for positions in these job categories was small when compared with the total number of persons out of work in 1982. Last year in Arizona, 131,000 people were unemployed. The unemployment rate for programmers was less than half of the 9.9 percent unemployment rate recorded for all jobs in the state. Systems analysts fared even better, with a rate of unemployment about one-third of the state's total average rate.

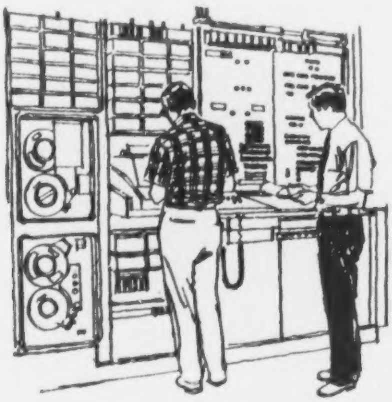
For every computer programmer job opening during 1982 there were nearly four students graduated with computer programming degrees or certificates from post-secondary schools. Students graduating from universities as systems analysts had little trouble getting jobs. Job openings for systems analysts exceeded the number both applicants and graduates in Arizona last year.

The surplus of computer programmers and systems analysts in Arizona is not expected to continue over a long period of time. Mr. Pater stated, "Long-term projections, from six to 12 months, indicate a strong demand for professionals in data processing." The table on top of page 5 shows the projected employment and growth rates for both job classifications.

	Estimated 1983 Employment	Projected 1983-84 Job Openings	1983-84 Growth Rate	Projected 1983-88 Job Openings	1983-88 Growth Rate
Computer Programmer	3,200	247	7.7%	1,594	49.8%
Systems Analyst	3,256	188	5.8%	1,276	39.2%

Growth for these jobs, while somewhat slower this year, will flourish during the next five years. Over 300 computer programmers are expected to be hired each year. Nearly 250 systems analysts will be needed each year to fill job openings between 1983 and 1988.

A severe shortage of experienced, competent computer programmers exists in the state. Most of Arizona's large computer installations look for professionals who have been working in the field from two to five years. Tony Benavidez, Regional Personnel Manager with First Interstate Services Company looks for ". . . applicants with three years of experience on large IBM mainframe and a very strong command of COBOL and Job Control Language." Data-processing installations find it particularly difficult to find computer programmers and systems analysts with experience in specialty areas. "Computer graphics programming positions are very difficult to fill with qualified applicants," according to Shirley Kranicz, Senior Employment Representative in Human Resources, Staffing Department at Salt River Project. Many employers agreed that communications is another area lacking qualified job seekers. Don Nemchik, Systems Project Manager at Arizona State Department of Economic Security's Office of Data Administration summarized the views of many data-processing managers. He feels that "It is very difficult to obtain computer programmers and systems analysts who have the skills necessary to communicate effectively with our users." In addition, the majority of employers desire applicants whose backgrounds include the use of specific computer types.



Contrary to what large businesses are doing, "Smaller businesses are more likely to hire college graduates directly into computer programming trainee positions," stated Madge Valladares, Coordinator of Career Planning and Placement at Maricopa Technical Community College. Ms. Valladares has further noticed that "Most of the smaller employers want graduates with business and accounting backgrounds."

Nationally, a strong demand exists for both computer programmers and systems analysts. This demand is expected to escalate even higher during the next five years. Rapid technological advancements in electronics, the plunging cost of computers and the development of user-friendly software have merged to create an unsurpassed demand for computers. Computerized robots are being used in some manufacturing plants for assembly work. Automatic bank tellers, automatic mail machines, and computer-operated automobile carburetors and telephones are becoming more commonplace. Word processors are replacing typewriters. Data processors are replacing adding machines. Today, computer ownership is even within reach of the average household.

Data processing personnel will be needed to develop software, improve hardware, write programs for business as well as technical and scientific usages, and repair both large and small computers. Where will all these data-processing specialists come from? Most will be trained by our colleges, universities, and technical trade schools. In light of the rapidly changing technology, are these post-secondary educational facilities able to adequately train students? Most employers felt that technical colleges and training establishments did a much better job of preparing students for data-processing jobs than did other types of training institutes and colleges. It was generally felt that technical training centers provided more intense training in technical areas while they limited the general-study courses students needed to graduate. The majority of the graduates are hired into entry-level positions, such as computer operators. Computer programmers are then promoted within the company from these entry-level positions. Computer programmers are usually promoted to systems analysts, although some firms require systems analysts to have a four-year college degree.

Arizona's colleges and universities have had their share of growing pains in high-technology areas such as data processing. Budgetary restraints placed on the colleges and universities make it very difficult for them to obtain state-of-the-art equipment and at the same time keep up with huge enrollment demands.

The effectiveness of most of the state's two-year educational institution training programs is determined by advisory councils which meet regularly to evaluate these programs. According to Dr. Warren F. Buxton, CDP, Computer Technology, Maricopa Technical Community College, "These advisory councils are made up of data-processing specialists from private industry firms in Arizona and data-processing personnel from the college. The advisory council keeps us abreast of the changing needs of our state's employers. Through the advisory council, Maricopa Technical Community College is able to ensure that students receive intensive training in those areas that are needed by the firms that are likely to hire our graduates."

Dr. Buxton noted that "Changes are rapidly occurring in our computer training programs as a result of technological advancements in the industry. We have had almost total conversion from punched cards to direct input media. Additionally, because it has now become a matter of survival in today's work to have a basic understanding of computers, we have a much stronger emphasis on user training, especially in the use of micro-computers. User training did not even exist five years ago."

The popularity of computers is not a fad. While Arizona's employers are able to be considerably more selective in hiring data-processing personnel than employers in other areas of the country, there is a demand for computer programmers and systems analysts throughout the nation. An increasing number of firms are looking for personnel specializing in specific areas, such as data bases, communications, and computer-aided design. The demand for data-processing personnel is expected to continue to exceed the supply during the next few years, in spite of stepped-up training efforts by Arizona's post-secondary educational centers.

- - - Donna Poggensee

1983 OCCUPATIONAL EMPLOYMENT SURVEY OF MANUFACTURING AND HOSPITALS

Each year a representative sample of Arizona's employers is contacted for the purpose of updating occupational data for their industry.

The Arizona Occupational Employment Statistics (OES) Program is a federal-state cooperative program which conducts surveys by county to determine current occupational employment, and to estimate demand for occupational skills in each industry. Data on the number employed and trends in employment for specific occupations are used to estimate future job openings and are an aid in occupational counseling, as well as in planning employment and educational training programs.

OES surveys are conducted in a three-year cycle so that occupational data for one-third of the industries is updated each year. Employers are selected to reflect a cross section of all sizes of firms by using standard sampling techniques.

This year the OES Unit is collecting data from employers in Manufacturing and Hospitals. Surveying is done by either personal interview or mail-out questionnaires. Employers will be asked to provide a count of their employees by occupation. Additionally, OES is interested in information employers wish to volunteer regarding industry trends and occupational changes within their industry.

If you would like more information on the OES Program, or would like to receive copies of the Occupational Profiles which are produced from the information developed by the surveys, telephone 255-3876, 1-800-321-0381.

- - - Sue Smith

* * *

SUPPLEMENT HIGHLIGHTS NEW JOBS

More than 275 new occupations have been added to the Dictionary of Occupational Titles (DOT) by the U.S. Department of Labor in order to keep up with the changing needs of the job market.

The new supplement to the widely-used dictionary adds definitions and descriptions of occupations that have emerged since the last DOT was published six years ago. High technology industries and the increasing prominence of computers continue to provide new and changing job requirements.

The DOT Fourth Edition Supplement contains such new occupations as: solar-energy systems designer, nuclear-decontamination research specialist, software technician, vector- control assistant, radiopharmacist, optical-effects-camera operator, laserist, job development specialist, radiation-protection specialist, satellite-instruction facilitator, keymodule-assembly-machine tender, ultrasonic tester, computerized-photofinishing technician, laser-beam trim operator, and computer - controlled - color - photograph - printer operator--to name a few.

To increase its usefulness in placement, counseling, and job training programs, the supplement lists selected worker characteristics such as training time and physical demands for each occupational definition. The supplement is available for $4.50 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The Dictionary itself is available for $23.00.

Arizona Labor Force and Employment

April 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Apr.* 1983	Mar. 1983	Apr. 1982	Mar. to Apr.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1346.6	1349.6	1322.4	-3.0	+24.2
Total Unemployment	139.4	143.4	112.8	-4.0	+26.6
Rate	10.4	10.6	8.5	---	---
Rate (Sea. Adj.)**	10.6	10.8	8.8	---	---
Total Employment	1207.2	1206.2	1209.6	+1.0	-2.4

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Apr.* 1983	Mar. 1983	Apr. 1982	Mar. to Apr.	1982 to 1983
TOTAL WAGE AND SALARY	1043.3	1043.1	1046.0	+0.2	-2.7
Manufacturing	149.5	148.8	155.9	+0.7	-6.4
Durable Goods	115.7	114.7	121.3	+1.0	-5.6
Stone, Clay and Glass	5.4	5.2	5.2	+0.2	+0.2
Primary and Fabricated Metals	14.1	14.0	16.3	+0.1	-2.2
Primary Metals	6.6	6.5	8.4	+0.1	-1.8
Fabricated Metals	7.5	7.5	7.9	+0.0	-0.4
Machinery	59.8	59.3	61.7	+0.5	-1.9
Other Durable Goods	36.4	36.2	38.1	+0.2	-1.7
Aircraft and Missiles	17.0	17.0	18.5	+0.0	-1.5
Lumber and Wood Products (Except Furniture)	5.0	5.0	4.9	+0.0	+0.1
All Other Durable Goods	14.4	14.2	14.7	+0.2	-0.3
Nondurable Goods	33.8	34.1	34.6	-0.3	-0.8
Food and Kindred Products	8.2	8.3	8.4	-0.1	-0.2
Apparel	4.7	4.8	5.2	-0.1	-0.5
Printing and Publishing	11.8	11.8	11.4	+0.0	+0.4
All Other Nondurable Goods	9.1	9.2	9.6	-0.1	-0.5
Mining and Quarrying	15.7	15.7	21.9	+0.0	-6.2
Copper Mining	12.8	12.7	18.7	+0.1	-5.9
Other Mining and Quarrying	2.9	3.0	3.2	-0.1	-0.3
Construction	67.9	67.2	64.5	+0.7	+3.4
Trans., Communications, and Public Utilities	56.1	55.9	56.3	+0.2	-0.2
Transportation	23.5	23.4	23.6	+0.1	-0.1
Communications and Public Utilities	32.6	32.5	32.7	+0.1	-0.1
Trade	256.4	256.8	255.4	-0.4	+1.0
Wholesale Trade	51.0	51.4	51.7	-0.4	-0.7
Retail Trade	205.4	205.4	203.7	+0.0	+1.7
General Merchandise and Apparel	36.6	36.6	38.7	+0.0	-2.1
Food Stores	32.9	33.0	32.3	-0.1	+0.6
Automotive and Service Stations	24.2	24.2	24.4	+0.0	-0.2
Eating and Drinking Places	71.5	71.4	68.3	+0.1	+3.2
Other Retail Trade	40.2	40.2	40.0	+0.0	+0.2
Finance, Insurance, and Real Estate	62.0	61.9	62.0	+0.1	+0.0
Services and Miscellaneous	226.6	225.9	223.5	+0.7	+3.1
Hotels and Other Lodging Places	24.5	24.3	24.2	+0.2	+0.3
Business Services	41.3	41.0	41.2	+0.3	+0.1
Health Services	62.4	62.2	60.7	+0.2	+1.7
Other Services	98.4	98.4	97.4	+0.0	+1.0
Government	209.1	210.9	206.5	-1.8	+2.6
Federal	38.0	38.0	37.3	+0.0	+0.7
State and Local	171.1	172.9	169.2	-1.8	+1.9
School	106.4	107.8	103.1	-1.4	+3.3

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

BEST AVAILA

April 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
Apr.* 1983	Mar. 1983	Apr. 1982	-- Amt Change -- Mar. to Apr.	1982 to 1983	Apr.* 1983	Mar. 1983	Apr. 1982	-- Amt Change -- Mar. to Apr.	1982 to 1983
819.5	821.5	808.1	-2.0	+11.4	253.3	253.9	244.6	-0.6	+8.7
66.4	69.1	56.4	-2.7	+10.0	26.3	27.6	19.6	-1.3	+6.7
8.1	8.4	7.0	---	---	10.4	10.9	8.0	---	---
8.3	8.5	7.2	---	---	10.6	11.0	8.2	---	---
753.1	752.4	751.7	+0.7	+1.4	227.0	226.3	225.0	+0.7	+2.0

BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

663.0	663.7	662.6	-0.7	+0.4	195.4	195.0	193.7	+0.4	+1.7
107.3	106.9	112.7	+0.4	-5.4	26.1	25.9	25.9	+0.2	+0.2
84.5	84.0	89.5	+0.5	-5.0	21.2	21.0	21.1	+0.2	+0.1
3.3	3.2	3.1	+0.1	+0.2					
9.0	9.0	10.4	+0.0	-1.4					
47.2	46.8	49.7	+0.4	-2.5					
25.0	25.0	26.3	+0.0	-1.3					
22.8	22.9	23.2	-0.1	-0.4	4.9	4.9	4.8	+0.0	+0.1
5.6	5.7	5.9	-0.1	-0.3					
2.1	2.2	2.4	-0.1	-0.3					
8.7	8.6	8.4	+0.1	+0.3					
6.4	6.4	6.5	+0.0	-0.1					
0.6	0.6	0.4	+0.0	+0.2	3.7	3.7	6.0	+0.0	-2.3
46.2	45.8	44.2	+0.4	+2.0	12.8	12.6	11.3	+0.2	+1.5
35.2	35.1	35.4	+0.1	-0.2	8.8	8.7	9.0	+0.1	-0.2
15.1	15.1	15.1	+0.0	+0.0	3.9	3.8	3.9	+0.1	+0.0
20.1	20.0	20.3	+0.1	-0.2	4.9	4.9	5.1	+0.0	-0.2
171.0	171.6	170.2	-0.6	+0.8	43.2	43.1	43.6	+0.1	-0.4
40.5	40.6	40.8	-0.1	-0.3	5.8	5.7	6.1	+0.1	-0.3
130.5	131.0	129.4	-0.5	+1.1	37.4	37.4	37.5	+0.0	-0.1
23.2	23.1	24.4	+0.1	-1.2	6.8	6.9	7.5	-0.1	-0.7
21.0	21.1	20.8	-0.1	+0.2	5.4	5.4	5.2	+0.0	+0.2
14.6	14.6	14.8	+0.0	-0.2	4.4	4.3	4.4	+0.1	+0.0
44.3	44.8	42.1	-0.5	+2.2	13.4	13.4	13.1	+0.0	+0.3
27.4	27.4	27.3	+0.0	+0.1	7.4	7.4	7.3	+0.0	+0.1
48.1	48.1	48.5	+0.0	-0.4	8.8	8.8	8.5	+0.0	+0.3
150.6	150.3	147.5	+0.3	+3.1	44.7	44.8	43.9	-0.1	+0.8
14.9	15.1	14.5	-0.2	+0.4	3.5	3.7	3.6	-0.2	-0.1
33.7	33.4	33.6	+0.3	+0.1	6.0	6.0	6.0	+0.0	+0.0
41.3	41.2	39.9	+0.1	+1.4	13.7	13.7	13.4	+0.0	+0.3
60.7	60.6	59.5	+0.1	+1.2	21.5	21.4	20.9	+0.1	+0.6
104.0	105.3	103.7	-1.3	+0.3	47.3	47.4	45.5	-0.1	+1.8

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

ABLE COPY

Nonmetropolitan Counties Labor Force and Employment

April 1983 (preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,175	29,400	35,575	16,250	9,400	3,300	5,125
Total Unemployment	2,800	3,725	3,875	4,775	2,575	250	925
Rate	18.5%	12.7%	10.9%	29.4%	27.4%	7.6%	18.0%
Rate (Seas. Adj.)**. . . .	19.4%	12.8%	11.2%	30.0%	28.0%	7.6%	INA
Total Employment	12,375	25,675	31,700	11,475	6,825	3,050	4,200

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL WAGE AND SALARY . . .	12,850	21,275	30,300	9,450	4,325	2,950	2,450
Manufacturing	400	1,600	2,200	1,225	100	350	100
Mining and Quarrying	25	375	50	1,650	75	1,600	0
Construction	1,425	675	975	275	150	25	100
Trans., Comm., & Pub. Util..	1,700	1,400	2,575	300	175	50	50
Trade	1,000	4,100	7,075	1,775	1,350	300	875
Fin., Insur., & Real Estate.	125	550	775	225	100	25	125
Services and Miscellaneous .	2,900	2,700	6,725	1,600	625	75	600
Government	5,275	9,875	9,925	2,400	1,750	525	600

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,650	24,300	33,750	9,050	32,550	38,125
Total Unemployment	3,700	4,125	6,625	2,000	3,425	7,800
Rate	16.3%	17.0%	19.6%	22.1%	10.5%	20.5%
Rate (Seas. Adj.)**. . . .	16.3%	17.2%	20.1%	25.7%	10.6%	INA
Total Employment	18,950	20,175	27,125	7,050	29,125	30,300

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY . . .	14,750	16,025	23,375	7,050	17,825	22,150
Manufacturing	2,125	1,425	2,300	725	1,875	1,675
Mining and Quarrying	275	1,100	5,175	25	1,025	75
Construction	950	625	550	175	1,050	1,825
Trans., Comm., & Pub. Util..	925	1,625	950	525	825	950
Trade	4,325	3,275	3,700	2,900	4,500	7,025
Fin., Insur., & Real Estate.	600	300	550	250	750	675
Services and Miscellaneous .	2,400	3,400	2,100	950	3,425	3,725
Government	3,150	4,275	8,050	1,500	4,375	6,200

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

DO YOU KNOW WHAT IT MEANS?

Glossary of Some LMI Terms

Civilian Labor Force - number of persons 16 years and older defined as employed or unemployed, excluding members of the Armed Forces.

Employed - those persons working for pay or profit during a week, or unpaid family workers working 15 hours or more during a week. Also included are those who, although not working, had some job attachment and were not looking for work. This involves persons temporarily absent from a job due to illness, bad whether, vacation, or labor-management dispute, whether or not they were in a pay status during their time off.

Unemployment - the number of persons who for an entire week did not work at all, were able to work and availabe for work, and (1) were looking for work or (2) would have looked for work except that (a) they were waiting to return to a job from which they had been laid off; or (b) they were waiting to report to a new wage and salary job scheduled to start within the following 30 days (and were not in school during the week).

Unemployment Rate - the number of unemployed expressed as a percent of the civilian labor force.

The tables "ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS" and "ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES" were not available at the time the Newsletter went to press. If you need these statistics, contact our office at 255-3871.

Estimated Hours and Earnings of Production Workers in Selected Industries in Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	APR.* 1983	MAR. 1983	APR. 1982	APR.* 1983	MAR. 1983	APR. 1982	APR.* 1983	MAR. 1983	APR. 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	351.05	348.96	329.84	39.4	39.7	38.0	8.91	8.79	8.68
Aircraft & Missiles	471.91	465.89	412.63	42.4	42.2	39.6	11.13	11.04	10.42
Food & Kindred Products	328.68	330.89	279.89	39.6	40.6	39.2	8.30	8.15	7.14
Primary Metals	461.77	456.87	444.60	38.1	38.2	38.0	12.12	11.96	11.70
Machinery	313.53	320.80	283.12	38.9	39.9	37.5	8.06	8.04	7.55
Copper Mining	523.38	514.44	488.82	39.5	39.3	38.1	13.25	13.09	12.83
Construction	456.96	458.92	464.97	38.4	38.5	36.1	11.90	11.92	12.88
Utilities	479.12	479.12	425.14	42.4	42.4	40.8	11.30	11.30	10.42
Retail Trade**	205.74	205.08	200.74	33.4	33.4	32.8	6.16	6.14	6.12
Wholesale Trade	339.29	334.67	313.23	40.2	39.7	39.4	8.44	8.43	7.95

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/82)

THE ARIZONA LABOR FORCE IN APRIL 1983

Almost every day there seems to be another story in the news showing how the economy is improving. Whether it is a small increase or decrease in prices, a drop in interest rates, or a rise in industrial production, many different indicators of the economy's health are pointing in positive directions. The local economy also shows slow improvement as the state's unemployment rate fell two-tenths of a percent to 10.6 percent in April.

While the recovery is weaker than past recoveries, employment increased in several industries in April. Construction and manufacturing deserve particular note as they both appear to have turned around after lengthy declines. Improved consumer confidence and lowered interest rates have helped home builders in the Phoenix and Tucson areas increase staffs. Since March of last year, over 5,000 new construction jobs have been created, an eight percent increase. The near-term outlook appears good as many builders are developing new subdivisions in all price ranges. If the mild recovery of the last six to nine months continues, we expect the industry to enjoy a long period of prosperity. If the pace of the recovery increases too fast, however, material shortages and upward pressure on prices could forestall further recovery. Suppliers and builders will be looking to regain past profit margins, but to the extent price increases remain reasonable, the construction industry should continue growing.

Equally encouraging was the 700 rise in manufacturing employment in April. After losing over 15,000 jobs in 17 months, a turnaround appears to have occurred in March. A total of 1,500 jobs have been added in the last two months. Much of the improvement can be traced to firms supplying materials to the construction industry. Local high technology firms have also added to the improvement. Normal seasonal declines in the food and apparel sectors offset some of the increase in April. We expect the hiring pace to quicken later this year as the national economy expands and defense spending increases.

With April comes Easter and the end of the winter tourist season in Arizona. The 1982-83 season was a record setter at the metropolitan area airports, but the increased traffic did not result in new highs for tourist-related employment. Much of the air traffic increase was due to cut-rate fares which allowed for more budget-minded visitors.

Overall, Arizona's economy is closely following the path we predicted at the beginning of the year. While mining and government have been stagnant, manufacturing and construction have shown slow growth. Meanwhile, the trade and services sectors have followed seasonal trends. In general, most of the improvement has been in the Phoenix and Tucson areas. In the rural areas of the state, high unemployment is likely to continue for sometime. Limited job opportunities and depressed conditions in the copper, lumber, and border trade industries make recovery a long and difficult process.

UNEMPLOYMENT RATES

	April 1983	March 1983	April 1982
Arizona	10.6%	10.8%	8.8%
Maricopa County	8.3	8.5	7.2
Pima County	10.6	11.0	8.2
United States	10.2	10.3	9.3

THE BUCK STOPS HERE

Although many people dream of being their own boss, the self-employed account for only about 6.2 percent of Arizona's employed. Nationally, 9.1 percent are self-employed. With unemployment reaching record levels, many might consider hiring themselves if no one else will.

The number of self-employed has declined throughout the years as small businesses find it hard to compete with the larger ones. Moreover, workers often find the salaries and fringe benefits offered by employers more appealing than the prospect of setting out on their own.

MOM AND POP'S
Grocery
20
MOM'S
PLACE
Good Food

But there are several advantages to self-employment including independence, flexibility, a chance to use your creativity, and investment opportunities. On the other hand, work hours tend to be long, there may be personal liability to creditors, and you may need to perform a wide variety of functions for which you may not be trained.

Those self-employed persons who tend to fail usually lack experience in the field, managerial skills, or business competence. But franchise contacts from established businesses reduce much of the risk, and there are classes and books that answer many of the questions of a new entrepreneur. Also, the Small Business Administration offers management advice, publications, and workshops.

What occupations are commonly held by the self-employed? The following list is compiled from statistics of the Bureau of Labor Statistics, U.S. Department of Labor. The occupation's title is followed by the percent of all workers in the occupation that is self-employed. Only those whose percentage exceeds 25 percent appears.

Dentists (72%), Barbers (70%), Authors (62%), Huckster/Peddlers (56%), Demonstrators (51%), Teachers not classified (46%), Hairdressers/Cosmetologists (42%), Newspaper Carriers/Venders (38%), Painters/Sculptors (37%), Lawyers (35.5%), Timbercutting/Logging Workers (35.5%), Real Estate Agents/Brokers (33%), Photographers (32.5%), Architects (32%), Editors/Reporters (31%), Dressmakers, except factory (28%), Carpet Installers (27%).

A 1981 study by the U.S. Department of Labor looked at the self-employed during 1979. It revealed that the self-employed tended to be older than those holding a salaried job. In addition, self-employed workers are more likely to be male. In 1979, 75 percent of the self-employed were men. But women have begun to make a move into this area of employment. Since 1972, the number of self-employed females has grown five times faster than that for men.

- - - Margaret Coulter

NEW DEVELOPMENTS

Air Transportation - American West Airlines Inc. of Phoenix will locate its corporate headquarters in Tempe in 30,000 square feet of office space in the Cholla Corporate Center at 222 S. Mill Ave. The office complex will house the airline's general offices and a 24-hour reservation and information center. The company plans to hire 300 employees by August and 200 more by the end of the year.

Republic Airlines plans to add 10 flights from Sky Harbor Airport and create 100 jobs in Phoenix. Republic's Phoenix operation currently employs 1,400 people.

Communications - ON-TV, the local subscription television company that serves more than 24,000 Phoenix area customers, ceased operations in May as a result of a serious erosion of subscribers in recent months. The company employed more than 100 people locally.

American Cable Television Inc. laid off about 50 employees in April as part of a plan to streamline its operations. Most of the employees were in sales. The company is concentrating its marketing techniques on established cable areas rather than new ones and needs fewer sales people.

Construction - Work on a $200 million downtown office, retail, and residential complex called "the French Quarter" is scheduled to begin in June, although it has a 12-year estimated completion date. The project is planned for a five-block area between Central Avenue and Third, McKinley and Taylor streets.

Mobil Land, a subsidiary of Mobil Oil Company, plans to build 2,000 homes and space for offices and light manufacturing northeast of Falcon Field outside of Mesa. The project would be similar to such planned communities as Leisure World and Fountain of the Sun.

Construction began in mid-May on a $150 million high-rise office and shopping complex at Southern Avenue and Dorsey Lane in Tempe. It will be called Tempe City Center and will contain 700,000 square feet of office and retail space. The project will include three man-made lakes.

Approval has been given by the Maricopa County Board of Supervisors to allow a 38-acre zoo to be built on Northern Avenue, 3 miles west of Litchfield Road. Already complete at Wildlife World are 19 acres which are being used for an exotic-bird and animal-propagation farm. An entry building, gift shop, restrooms, primate enclosures, aviaries and, flamingo lagoon are also under construction.

Manufacturing - Honeywell Inc.'s Large Computer Products Division in Phoenix recalled 93 employees that were laid off in December. The company said the workers are being recalled because its orders for computer products have increased.

Garrett Turbine Engine Co. laid off 200 Phoenix employees in mid-April, bringing the total number of employees furloughed since last year to 1,400. Reduced orders for the aerospace company's products forced the move.

Times Fiber Communications' Western Division, 4645 W. Van Buren in Phoenix, laid off about 100 employees in late April. The layoff amounts to about half of its work force. Economic conditions were cited as the reason for the layoff.

Lumonics Inc. recently opened a 5,000-square-foot facility in Tempe to provide greater sales and service support to its product, Lasermark. While Lumonics' world headquarters is in Kanta, Ontario, Canada, the U.S. headquarters will be based in the new Tempe plant. The company is the third largest laser manufacturer in the world.

Mining - The McCade-Gladstone gold and silver mine near Prescott is undergoing development work, after being closed since 1937. Jerome Mining Company bought the property, 20 miles south of Prescott, in 1980. Since then, the company has completed exploration and is now developing the underground mine. Production is expected to begin in early 1984.

In its second work force reduction in six months, Anaconda Minerals Co. laid off about 30 employees at its research department in Tucson. The latest staff cutback leaves roughly 120 researchers at the facility.

Restarting two furnaces at the Phelps Dodge Corp. smelter in Douglas ultimately will mean the recall of about 260 workers. The resumption results from availability of concentrates at the firm's New Cornelia mine and concentrater at Ajo.

Services - The $40 million luxury resort, Paradise Valley Inn, is expected to provide 500 new jobs when it opens in January 1984. The Loews-resort/hotel will be located at the intersection of Jackrabbit and Scottsdale roads, encompassing 20 acres. The Inn will have 380 rooms and suites, several restaurants, swimming pools, tennis courts, a theater, health club, and is affiliated with the championship Orangetree Golf course.

Trade - Sears Roebuck and Co. announced plans to close its central credit office in Park Mall in Tucson on June 18, laying off 50 employees. The credit office is being closed to reduce operating costs and increase efficiency. Sears is also closing credit offices in El Paso, Texas, and Salt Lake City.

Babbitt Brothers Trading Company has announced plans for construction of a new 6,000-square-foot general store at Desert View, near the east entrance to Grand Canyon National Park. The new store will offer a full line of groceries, as well as clothing, hiking equipment, and general department store merchandise aimed at the tourist trade. Target opening date is mid-June.

NEW LMI PUBLICATIONS

The 1982 Maricopa County Small Employer Wage Survey and the 1982 Pima County Small Employer publications are now available. The surveys cover wages paid by private businesses with under 100 employees. This is the only source of occupational wage data for this group of employers. Since over 90 percent of the firms and nearly 40 percent of the employment in the metropolitan counties is in small businesses, this survey should be of use to many employers and their workers.

Job Openings is a monthly newspaper published by the U.S. Department of Labor which lists occupations in which employers have been looking for workers through the various Job Service offices in the United States. A limited number of this publication is available from our office.

One copy of each of the above LMI publications may be obtained by writing: Labor Market Information Publications - 733A, P.O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of printing.

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This periodical is issued and printed by the Arizona Department of Economic Security as authorized by the Wagner-Peyser Act and is paid out of federal funds granted by the U.S. Department of Labor.

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol VII No. 7
July 1983

Unemployment Rate

Seasonally Adjusted
May*

ARIZONA	10.4%
Maricopa Co.	8.1%
Pima Co.	10.3%
UNITED STATES	10.1%

Consumer Price Index

National-April
1967 - Base Year

Wage Earner/Clerical Worker -	294.9
% Chg. Yr. Ago	3.9
All Urban -	295.5
% Chg. Yr. Ago	3.9

Phoenix-1st Qtr.
1977 - Base Year

All Urban -	167.6
% Chg. Yr. Ago	-0.3

Producer Price Index

National-April*
1967 - Base Year

All Commodities -	300.8
% Chg. Yr. Ago	0.9
Finished Goods -	283.0
% Chg. Yr. Ago	2.1

* Preliminary

Wages: Phoenix or Tucson?

If you are a bartender, should you look for work in Tucson or Phoenix? According to the Department of Economic Security's small employer wage surveys for Maricopa and Pima counties conducted in September 1982, you would go to Tucson. The weighted-hourly wage according to the survey's results, averaged $4.67 there, and $4.41 in Phoenix.

Most of the service industry's occupations drew higher wages in Tucson than in Phoenix. Of the seven occupational categories surveyed in both counties, only the services classification ranked the highest for Pima County. Totaling the same occupations' weighted average wages paid for these two areas, Tucson was slightly ahead of Phoenix, 5.7 percent as of August 1982. Of the 12 services occupations in the survey, only three (chef, cook, and housekeeping cleaner) reported higher hourly weighted-average-wage rates in Maricopa County.

The small employer wage survey for Pima County included 1,072 of the county's 2,055 small businesses, while for Maricopa County the canvass numbered 3,350 of its 6,500 small employers. The response came from about 20 percent of those surveyed, or 10 percent of the total number of small businesses. A larger employer response gives us more reliable wage rates, but the occupations' relative wage rate can be approximated from these survey results.

In 1982, there were 134 occupational wage rates reported in the Maricopa County Small Employer Wage Survey and 90 in the Pima County Small Employer Wage Survey. The industries for which occupational wage rates are reported in these publications include: Construction; Manufacturing: Transportation, Communication, and Public Utilities; Wholesale Trade; Retail Trade; Finance, Insurance, and Real Estate; and Services. Within these industrial groups, the occupations' wage levels are given in the following categories: Managerial, Professional, Technical, Services, Maintenance and Production, Clerical, and Sales. An All-Industry occupational wage table, which aggregates all private businesses, is provided as a general estimate of private sector wage levels.

If you are a purchasing agent, the place to live for higher wages would be the Phoenix area, according to the results of these surveys. The average-hourly-weighted wage was slightly higher in Phoenix, $10.58 and $10.02 in Tucson. This occupation's professional category, as well as those of managerial, technical, maintenance and production, clerical, and sales workers ranked higher in Maricopa County than comparable wages in Tucson by the following amounts:

Managerial	8.0%	Clerical	5.0%
Professional	24.8	Sales	4.3
Technical	9.4		
Maint. & Prod.	5.3		

Of the 89 occupations surveyed in both the Tucson and Phoenix areas, 29 reported higher average wage rates in the former. Some of the largest differentials between Tucson and Phoenix in the hourly wages according to the results of these surveys were as follows: accountant, $10.98 and $9.45; bulldozer operator, $11.86 and $10.13 and $6.89; light truck driver, $7.90 and $6.19; meat cutter, $7.77 and $5.38; pipe fitter (plumber), $13.96 and $10.60; sales route driver, $7.56 and $5.69; and sheet-metal worker, $11.37 and $8.21.

The remaining occupations in which weighted-average wage levels were higher in Tucson than in Phoenix in September 1982, were the following:

Accounting clerk; baker; branch manager; counter attendant; dining room attendant; estimator; executive secretary; host/hostess; kitchen helper; laundry operator; legal secretary; machine shop supvr.; parts counter person; security aide/guard; service manager; short order cook; switchboard operator; waiter/waitress.

The largest average wage variances were found for Phoenix and Tucson in the following occupations: automobile mechanic, $10.49 and $7.90; automobile service mgr. $13.83 and $8.76; carpenter, $11.56 and $8.57; cement mason/finisher, $10.76 and $8.45; EDP computer operator, $7.33 and $5.87; controller, $16.19 and $13.00; dispatcher, $7.58 and $6.15; drafter, $8.85 and $7.38; electronic technician, $7.84 and $5.84; general laborer, $7.13 and $5.65; groundskeeper, $6.69 and $4.40; industrial garage worker, $7.26 and $4.24; inspector, $7.73 and $5.23; parts (dept.) mgr., $10.70 and $7.33; retail store mgr., $7.21 and $5.89; EDP systems analyst, $19.99 and $10.18; training specialist, $9.41 and $6.23; and welder $8.38 and $7.03.

Copies of the wage survey may be obtained by writing the address on the back of this publication.

- - - Glede Kohler

WHO EARNS WHAT?

One thing a job seeker always considers before choosing a career is the salary. Recently the U.S. Bureau of Labor Statistics (BLS) released the results of the Current Population Survey (CPS) that looked at household earnings by occupation in 1981. What it found was that engineers make a lot of money and that women only make 64.7 percent of the men's weekly earnings.

Several points must be kept in mind in comparing the earnings in this ranking. The figures relate to earnings from wages and salaries only; earnings from self-employment, which tend to be higher than earnings from salaries, are not included. Thus physicians, many of whom are self-employed, have the highest earnings among all occupations, but they are 14th in this ranking because these data relate only to doctors who worked for someone else, such as a clinic or a government agency.

The following table shows the top and bottom wages of occupations as determined by the question BLS asked of a cross-section of households, "How much does ... usually earn per week at this job before deductions. Include overtime, commissions, or tips usually received."

Weekly Earnings by Occupation

Rank	Title	1981 weekly earnings	Percent self-employed	1981 employment (thousands)
1	Engineers, aeronautical and astronautical	614		82
2	Engineers, chemical	575		65
3	Engineers, electrical	549		370
4	Lawyers	546	35.5	548
5	Engineers, mechanical	540		247
6	Sales managers, except retail trade	540		367
7	Economists	536		157
8	Stock and bond sales agents	535		156
9	Engineers, industrial	530		231
10	Airplane pilots	530		80
11	Engineers, other	527		241
12	Computer systems analysts	519		209
13	Engineers, civil	505		183
14	Physicians—medical and osteopathic	501	31.0	436
15	School administrators, college	491		137
16	Operations and systems researchers	485		196
17	School administrators—elementary and secondary	475		289
18	Chemists	467		134
19	Authors	464	62.0	71
20	Pharmacists	463		147
21	Structural metal crafts workers	455		80
22	Millwrights	443		102
23	Officials, public administration	441		469
24	Sales representatives, manufacturing	434		410
25	Tool, diemakers	433		170
226	Hairdressers and cosmetologists	179	42.0	564
227	Salesclerks, retail trade	178		2380
228	Farm laborers, wage workers	174		941
229	Dressmakers, except factory	173	28.0	114
230	Nurses' aides, orderlies, and attendants	172		1116
231	Cooks, except private household	171		1360
232	Cashiers	168		1621
233	Teacher aides, except monitors	167		373
234	Laundry and drycleaning operatives, nec	166		189
235	Food workers, nec, except private household	165		538
236	Clothing ironers and pressers	164		115
237	Sewers and stitchers	157		780
238	Shoemaking machine operatives	154		73
239	Child-care workers, except private household	151		417
240	Waiters and waitresses	150		1442
241	Waiters' assistants	143		217
242	Lodging quarters cleaners, except private household	142		175
243	Food counter, fountain workers	141		460
244	Dishwashers	135		249
245	Maids and servants, private household	126		457
246	Housekeepers, private household	123		98
247	Child-care workers, private household	80		443

THE JOB TRAINING PARTNERSHIP ACT DISSECTED: IDENTIFYING DISLOCATED WORKERS

The enactment of the Job Training Partnership Act (JTPA), which takes effect October 1, brings the need to identify some new target groups that have not been singled out in the past. One of these groups, dislocated workers, has an entire segment of the act (Title III) geared specifically to them. Arizona's Labor Market Information Unit has begun to look at the data requirements that will be needed to satisfy this act. This article attempts to answer some questions about dislocated workers.

Determining Areas of Concentration

The geographic distribution of dislocated workers by county can be identified from records of unemployment insurance claimants. Although claimant records do not provide a complete count of all dislocated workers, they offer a very good set of indicators about where they are concentrated. It is central to the concept of dislocated workers that they are unemployed, or will soon be unemployed, from an industry and an occupation that is declining, or for which there is a low probability of reemployment in that industry or occupation near where they live. The Job Training Partnership Act, Title III, recognizes that older workers under these circumstances will experience strong barriers to employment, and operationally defines older workers as those 55 or older. Given those characteristics, the number of unemployed claimants can be identified and the relative proportion of dislocated workers among counties can be displayed.

The table of "Dislocated Worker Indicators" provides the county distribution of Arizona claimants potentially identifiable as "dislocated workers." It includes all the long-term unemployed drawing some form of unemployment compensation during March 1983. The first major group is those receiving Federal Supplemental Compensation. To be eligible for FSC it is required that regular unemployment insurance benefits are exhausted, and implies that the majority have been unemployed at least for 26 weeks. The other major group is those who have been claiming regular unemployment insurance benefits for 15 weeks or more. The estimate for these is made by multiplying the state ratio of claimants drawing for 15 or more weeks to the total number of claimants, by each county's number of claimants. The "Long-Term Unemployed" is the sum of the two major groups.

The second part of the table is detailed from special unemployment insurance claimant reports for the week of January 12, 1983. It provides age, industry, and occupation distribution of claimants by county. First listed is the number of unemployed over 55 years old. This is a total without regard to duration of weeks claimed. The next group is the unemployed from declining industries and occupations. Only two industries are identified as declining. One is the mining industry, of which copper mining is the principal component. The other is the retail trade industry in the counties bordering Mexico. Retail trade is declining in those counties because of the Mexican peso devaluation. Within each industry, the number age 55 and over is identified and a selected list of occupations, whose unemployed are unlikely to find employment in other industries in the county, is given. All industry and occupation characteristics are without respect to duration of unemployment.

Although with special programming it might be possible to determine the long-term claimants by each of the characteristics citėd above, its not likely that county distribution of dislocated workers would be significantly different. These data show that the concentration of dislocated workers is in Pima, Gila, and Pinal counties, and that secondary concentrations are in Cochise, Graham, and Santa Cruz counties. Substantial amounts also exist in Maricopa and Yuma counties.

(Continued on pg. 6)

Dislocated Worker Indicators

County	01	03	05	07	09	11	12	13	15	17	19	21	23	25	27	Arizona
Long Term Unemployed	392	740	653	1,805	491	23	75	10,998	431	710	4,810	1,179	804	1,512	1,238	26,568
FSC	250	410	318	1,445	337	15	32	5,784	256	351	2,638	770	263	345	607	14,819
UI - 15+ weeks	142	330	335	361	154	8	43	5,214	175	359	2,172	409	541	327	631	11,749
Unemployed over 55	48	153	108	239	89	11	21	2,390	41	118	894	185	423	192	193	5,204
Unemployed from Declining Industry &/or Occupation	5	328	18	1,309	454	84	1	401	113	24	3,393	919	509	44	285	8,264
Mining	5	58	18	1,309	454	84	1	401	113	24	2,124	807	61	44	14	6,006
Over 55		8		123	22			32	13	3	114	77	7	6	1	432
Occupation (by D.O.T.)	1	16	5	386	74	15	0	93	63	10	685	138	15	6	6	642
51				24		1			6		9	1				43
80				6	1						5	1				13
81				5	1				5	3	63	2	3		1	85
82		1		5	4			2			18	6	1		1	36
84				1	1			1	1		4					8
85		2	2	29	20	6		5	3	2	112	9	4	2		196
86		6		35	15			5	6		44	3		1		105
89				2		1		1			6			1		11
90			1	16	4			9	13	1	80	4		1	2	131
91				10					1		2					13
93	1	7	2	253	28	7		69	28	4	342	112	7	1	2	863
Retail Trade (Border County)		270									1,269		448		271	2,258
Over 55		26									134		32		17	209
Occupation		43									127		130		29	329
26		4									7		2		3	16
27		17									47		104		9	177
29		22									30		24		17	93

County Code Key

Code	County
01	Apache
03	Cochise
05	Coconino
07	Gila
09	Graham
11	Greenlee
12	La Paz
13	Maricopa
15	Mohave
17	Navajo
19	Pima
21	Pinal
23	Santa Cruz
25	Yavapai
27	Yuma

DOT Code Key

Mining

Code	Occupation
51	Ore Refining & Foundry Occupations
80	Occupations in Metal Fabricating, N.E.C.
81	Welders, Cutters & Related Occupations
82	Electrical Assembling, Installing & Repairing
84	Painting, Plastering, Water Proofing, Cementing
86	Construction Occupations, N.E.C.
89	Structural Work Occupations, N.E.C.
90	Motor Freight Occupations
91	Transportatin Occupations, N.E.C.
93	Occupatons in Extraction of Minerals

Trade

Code	Occupation
26	Sales Occupations, Consumable, Commodities
27	Sales Occupations, Commodities, N.E.C.
29	Miscellaneous Sales Occupations

Determining Eligibility Case-by-Case

In order to determine if any specific individual meets the requirements of the program, it will be necessary to match his other former employment attachment with the criteria of JTPA, Title III, and the state's additional qualifications. Meeting the unemployment or age test is simple enough, but meeting the criteria of former employment in a declining industry and/or occupation of the area is simple only if confined to copper mining and border county retail trade. It may also be fairly easy to determine in circumstances of a closed firm, if the firm is a major employer in the area. Other cases may require reference to labor market information publications. Whether or not an industry is declining in an area can be determined from a series of monthly industry employment statistics available from LMI. It is necessary to look at a three-to-five year series of data to know if the decline is other than a normal seasonal, recessionary cyclical, or long-term decline. At a state level, only copper mining meets that test.

Occupational decline can be determined, if it occurs across all industries, from Arizona Occupational Employment Forecasts. To determine the occupations' importance in declining industry, reference can be made to Arizona Occupational Profiles. These publications are also available from the LMI office.

- - - Ron Simon

OCCUPATIONAL FORECASTS

I bet you didn't know that there were more pin chasers employed in Arizona than gunsmiths. Or that only one new job opening will be available between 1983 and 1984 for a cheesemaker. And that there were more secretaries employed in the state in 1983 than there were people living in Greenlee County. Where are these odd-ball facts derived? From a recently released Labor Market Information Publication entitled Arizona Occupational Employment Forecasts.

This publication was developed by the Occupational Employment Statistics (OES) program of the Arizona Department of Economic Security. The OES staff surveys industries in all Arizona counties to determine the occupational composition of wage and salary workers in the state. After industry employment levels are developed, an econometric model is used to drive forecast variables, then staffing pattern ratios are applied. The end results are occupational employment estimates for 1983, 1984, and 1988 and their respective job opportunities.

Looking at the statistics in the publication, several rankings can be made. The five occupations in Arizona with the most people employed in 1983 were (1) "all other" managers & officers, (2) "all other" sales workers, (3) sales clerks (exclude cashiers), (4) "all other" laborers & unskilled workers, and (5) general office clerks. The top two occupations for job opportunities between 1983-88 are (1) "all other" managers & officers, and (2) secretaries. Unfortunately there will be no job opportunities between 1983-88 for cable drillers, filter &/or filter press operators, pulverizer & drier tenders, firework makers, heel builders, proof press operators, gasoline engine or mower repairers, comedians, or prosthetists/ ortholists.

The occupation that employed the most people in 1983 by county is as follows: adult education teachers (Apache), "all other" managers & officers (Cochise, Coconino, Graham, Maricopa, Mohave, Navajo, Pima, Pinal, Yavapai, Yuma/La Paz), "all other" laborers & unskilled workers (Gila, Greenlee), and sales clerks excluding cashiers (Santa Cruz).

Copies of Arizona Occupational Employment Forecasts can be obtained by writing to the address on the back page of this publication. It is available for the state as a whole and each of the individual counties. Please specify what geographic area you are interested in receiving.

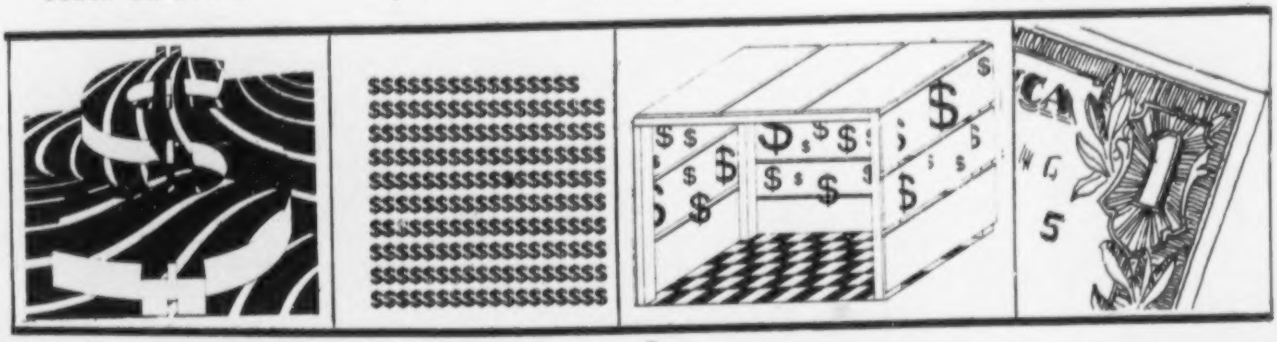
INCOME CREEPS BEHIND PRICES

Per-capita income figures for 1982 have just been released by the U.S. Dept. of Commerce. They show that Arizona's per-capita income increased slower than the national averages between 1981 and 1982. Arizona's gain was 4.5 percent compared to the national average of 5.3 percent.

Alaska continued to have the highest per capita income, as well as the greatest gain of any state. Mississippi had the lowest in amount and Iowa had the smallest gain. Overall, the rise in Americans' incomes last year was the smallest in 19 years. The national increase of 5.3 percent tracks behind the consumer price index increase of 6.1 percent for the same time period.

The following table ranks states by the growth rates in their per capita income.

	Per Capita Income 1982	Gain Over 1981
Alaska	$15,200	10.6%
Vermont	9,446	8.3
New York	12,328	7.6
South Dakota	9,506	7.6
New Jersey	13,027	7.2
Massachusetts	11,921	7.1
New Hampshire	10,710	7.0
Florida	10,875	7.0
Connecticut	13,687	6.9
Maryland	12,194	6.5
Georgia	9,514	6.5
Delaware	11,796	6.3
Dist. of Columbia	14,347	6.2
Virginia	11,003	6.2
Maine	9,033	5.9
Louisiana	10,083	5.9
Kansas	11,448	5.8
West Virginia	8,856	5.8
Texas	11,352	5.8
Rhode Island	10,730	5.7
New Mexico	8,997	5.7
Pennsylvania	10,943	5.6
Missouri	10,175	5.4
UNITED STATES	11,056	5.3
Kentucky	8,861	5.3
South Carolina	8,468	5.3
Mississippi	$ 7,792	5.2%
Oklahoma	10,776	5.2
Hawaii	11,602	5.2
Illinois	12,162	5.1
North Dakota	10,746	5.0
Colorado	11,776	5.0
Utah	8,733	4.9
California	12,543	4.8
Tennessee	8,849	4.7
Ohio	10,783	4.5
Wisconsin	10,497	4.5
Arizona	10,201	4.5
Alabama	8,581	4.4
North Carolina	9,032	4.3
Indiana	10,109	3.9
Oregon	10,392	3.8
Arkansas	8,332	3.6
Idaho	9,259	3.6
Montana	9,760	3.6
Washington	11,635	3.2
Minnesota	11,082	3.0
Michigan	11,052	2.7
Wyoming	11,970	2.0
Nevada	11,748	1.4
Nebraska	10,489	1.2
Iowa	10,532	.5



Arizona Labor Force and Employment

May 1983 (in thousands)

	ARIZONA			-- Amt Change --	
	May.* 1983	Apr. 1983	May. 1982	Apr. to May.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1339.7	1346.0	1327.8	-6.3	+11.9
Total Unemployment	135.7	138.2	123.0	-2.5	+12.7
Rate	10.1	10.3	9.3	---	---
Rate (Sea. Adj.)**	10.4	10.5	9.6	---	---
Total Employment	1204.0	1207.8	1204.8	-3.8	-0.8

THE ABOVE LABOR FORCE STATISTICS SHOULD

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	May.* 1983	Apr. 1983	May. 1982	Apr. to May.	1982 to 1983
TOTAL WAGE AND SALARY	1042.5	1044.0	1037.6	-1.5	+4.9
Manufacturing	150.1	149.7	154.7	+0.4	-4.6
Durable Goods	116.3	115.8	120.4	+0.5	-4.1
Stone, Clay and Glass	5.5	5.4	5.3	+0.1	+0.2
Primary and Fabricated Metals	14.0	14.1	15.4	-0.1	-1.4
Primary Metals	6.5	6.6	7.5	-0.1	-1.0
Fabricated Metals	7.5	7.5	7.9	+0.0	-0.4
Machinery	59.6	59.7	61.8	-0.1	-2.2
Other Durable Goods	37.2	36.6	37.9	+0.6	-0.7
Aircraft and Missiles	17.2	17.1	18.1	+0.1	-0.9
Lumber and Wood Products (Except Furniture)	5.4	5.1	5.0	+0.3	+0.4
All Other Durable Goods	14.6	14.4	14.8	+0.2	-0.2
Nondurable Goods	33.8	33.9	34.2	-0.1	-0.5
Food and Kindred Products	8.1	8.2	8.4	-0.1	-0.3
Apparel	4.8	4.7	5.1	+0.1	-0.3
Printing and Publishing	11.8	11.9	11.3	-0.1	+0.5
All Other Nondurable Goods	9.1	9.1	9.5	+0.0	-0.4
Mining and Quarrying	15.7	15.7	18.5	+0.0	-2.8
Copper Mining	12.8	12.8	15.4	+0.0	-2.6
Other Mining and Quarrying	2.9	2.9	3.1	+0.0	-0.2
Construction	70.5	68.6	65.1	+1.9	+5.4
Trans., Communications, and Public Utilities	55.7	55.9	56.4	-0.2	-0.7
Transportation	23.2	23.4	23.6	-0.2	-0.4
Communications and Public Utilities	32.5	32.5	32.8	+0.0	-0.3
Trade	255.4	256.1	253.6	-0.7	+1.8
Wholesale Trade	50.9	51.0	51.0	-0.1	-0.1
Retail Trade	204.5	205.1	202.6	-0.6	+1.9
General Merchandise and Apparel	36.4	36.5	37.8	-0.1	-1.4
Food Stores	32.5	32.8	32.2	-0.3	+0.3
Automotive and Service Stations	24.3	24.2	24.5	+0.1	-0.2
Eating and Drinking Places	71.0	71.4	68.3	-0.4	+2.7
Other Retail Trade	40.3	40.2	39.8	+0.1	+0.5
Finance, Insurance, and Real Estate	62.3	62.1	61.7	+0.2	+0.6
Services and Miscellaneous	225.5	226.4	222.7	-0.9	+2.8
Hotels and Other Lodging Places	24.2	24.4	23.8	-0.2	+0.4
Business Services	41.4	41.3	41.6	+0.1	-0.2
Health Services	62.3	62.4	60.7	-0.1	+1.6
Other Services	97.6	98.3	96.6	-0.7	+1.0
Government	207.3	209.5	204.9	-2.2	+2.4
Federal	38.2	38.1	37.5	+0.1	+0.7
State and Local	169.1	171.4	167.4	-2.3	+1.7
School	104.4	106.7	101.2	-2.3	+3.2

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

May 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
May.* 1983	Apr. 1983	May. 1982	Apr. to May.	1982 to 1983	May.* 1983	Apr. 1983	May. 1982	Apr. to May.	1982 to 1983
815.5	818.3	811.0	-2.8	+4.5	252.2	253.4	245.3	-1.2	+6.9
65.0	65.8	60.2	-0.8	+4.8	25.1	26.2	21.3	-1.1	+3.8
8.0	8.0	7.4	---	---	10.0	10.3	8.7	---	---
8.1	8.3	7.6	---	---	10.3	10.6	9.0	---	---
750.5	752.5	750.8	-2.0	-0.3	227.1	227.2	224.0	-0.1	+3.1

NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

662.9	663.4	659.3	-0.6	+3.5	195.7	195.7	192.1	+0.0	+3.6
107.6	107.4	112.0	+0.2	-4.4	26.3	26.2	26.0	+0.1	+0.3
84.7	84.5	88.9	+0.2	-4.2	21.4	21.3	21.2	+0.1	+0.2
3.4	3.3	3.2	+0.1	+0.2					
8.9	9.0	10.2	-0.1	-1.3					
47.1	47.1	49.7	+0.0	-2.6					
25.3	25.1	25.8	+0.2	-0.5					
22.9	22.9	23.1	+0.0	-0.2	4.9	4.9	4.8	+0.0	+0.1
5.6	5.6	6.0	+0.0	-0.4					
2.1	2.2	2.4	-0.1	-0.3					
8.7	8.7	8.3	+0.0	+0.4					
6.5	6.4	6.4	+0.1	+0.1					
0.6	0.6	0.4	+0.0	+0.2	3.7	3.7	5.2	+0.0	-1.
47.6	46.7	44.3	+0.9	+3.3	13.8	13.0	11.6	+0.8	+2.2
34.9	35.1	35.4	-0.2	-0.5	8.6	8.7	9.0	-0.1	-0.4
14.9	15.1	15.0	-0.2	-0.1	3.8	3.8	3.9	+0.0	-0.1
20.0	20.0	20.4	+0.0	-0.4	4.8	4.9	5.1	-0.1	-0.3
170.2	170.7	169.1	-0.5	+1.1	43.2	43.2	43.1	+0.0	+0.1
40.6	40.5	40.5	+0.1	+0.1	5.9	5.8	6.0	+0.1	-0.1
129.6	130.2	128.6	-0.6	+1.0	37.3	37.4	37.1	-0.1	+0.2
23.0	23.1	24.1	-0.1	-1.1	6.8	6.8	7.1	+0.0	-0.3
20.7	20.9	20.7	-0.2	+0.0	5.3	5.3	5.2	+0.0	+0.1
14.6	14.6	14.8	+0.0	-0.2	4.4	4.4	4.4	+0.0	+0.0
43.9	44.3	41.8	-0.4	+2.1	13.3	13.4	13.2	-0.1	+0.1
27.4	27.3	27.2	+0.1	+0.2	7.5	7.5	7.2	+0.0	+0.3
48.3	48.2	48.1	+0.1	+0.2	8.9	8.9	8.5	+0.0	+0.4
149.9	150.6	147.1	-0.7	+2.8	44.3	44.6	43.1	-0.3	+1.2
14.4	14.9	14.0	-0.5	+0.4	3.3	3.5	3.5	-0.2	-0.2
33.8	33.7	34.0	+0.1	-0.2	6.0	6.0	5.9	+0.0	+0.1
41.4	41.3	40.0	+0.1	+1.4	13.7	13.7	13.4	+0.0	+0.3
60.3	60.7	59.1	-0.4	+1.2	21.3	21.4	20.3	-0.1	+1.0
103.7	104.1	102.9	-0.4	+0.8	46.9	47.4	45.6	-0.5	+1.3

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

Nonmetropolitan Counties Labor Force and Employment

May 1983 (preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,500	28,925	34,575	15,450	9,350	3,275	5,100
Total Unemployment	3,125	3,350	3,275	4,225	2,525	225	925
Rate	20.2%	11.6%	9.5%	27.3%	27.0%	6.9%	18.2%
Rate (Seas. Adj.)**. . . .	22.5%	11.9%	10.0%	28.9%	27.8%	6.9%	INA
Total Employment	12,375	25,575	31,300	11,225	6,825	3,050	4,175

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY . . .	12,875	21,250	30,025	9,275	4,375	2,975	2,475
Manufacturing	400	1,600	2,275	1,225	100	350	100
Mining and Quarrying	25	400	50	1,650	75	1,600	0
Construction	1,450	750	1,000	275	150	25	100
Trans., Comm., & Pub. Util..	1,700	1,400	2,650	300	175	50	50
Trade	1,000	4,100	7,125	1,775	1,350	300	875
Fin., Insur., & Real Estate.	125	550	775	225	125	25	125
Services and Miscellaneous .	2,900	2,700	6,875	1,600	625	75	625
Government	5,275	9,750	9,275	2,225	1,775	550	600

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,875	24,050	33,650	8,725	32,175	38,425
Total Unemployment	3,725	3,825	6,700	1,825	3,050	8,850
Rate	16.3%	15.9%	19.9%	20.9%	9.5%	23.0%
Rate (Seas. Adj.)**. . . .	17.0%	17.6%	20.5%	23.7%	9.9%	INA
Total Employment	19,150	20,225	26,950	6,900	29,125	29,575

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY . . .	14,950	16,075	23,225	6,900	17,800	21,875
Manufacturing	2,075	1,500	2,300	750	1,900	1,650
Mining and Quarrying	275	1,100	5,150	25	1,025	75
Construction	1,000	675	575	175	1,050	1,875
Trans., Comm., & Pub. Util..	925	1,650	925	525	850	925
Trade	4,350	3,350	3,675	2,825	4,575	6,825
Fin., Insur., & Real Estate.	625	300	575	250	750	675
Services and Miscellaneous .	2,525	3,225	2,075	900	3,325	3,750
Government	3,175	4,275	7,950	1,450	4,325	6,100

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Arizona Labor Force and Employment for Economic Assistance Programs

April 1983 (preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,337,952	1,199,521	138,431	10.3%
Apache	15,099	12,282	2,817	18.7
Cochise	29,217	25,517	3,700	12.7
Coconino	35,350	31,504	3,846	10.9
Gila	16,229	11,411	4,818	29.7
Graham	9,324	6,778	2,546	27.3
Greenlee	3,305	3,025	280	8.5
La Paz	4,994	4,167	827	16.6
Maricopa	813,464	747,374	66,090	8.1
Mohave	22,358	18,826	3,532	15.8
Navajo	24,124	20,039	4,085	16.9
Pima	251,692	225,571	26,121	10.4
Pinal	33,540	26,953	6,587	19.6
Santa Cruz	9,043	7,006	2,037	22.5
Yavapai	32,373	28,959	3,414	10.5
Yuma	37,840	30,109	7,731	20.4

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Estimated Hours and Earnings of Production Workers in Selected Industries in Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	MAY * 1983	APR. 1983	MAY 1982	MAY * 1983	APR. 1983	MAY 1982	MAY * 1983	APR. 1983	MAY 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	361.49	351.16	340.65	40.3	39.5	39.2	8.97	8.89	8.69
Aircraft & Missiles	478.82	470.38	444.70	42.6	42.3	41.6	11.24	11.12	10.69
Food & Kindred Products	328.95	325.05	294.52	38.7	39.4	39.8	8.50	8.25	7.40
Primary Metals	459.19	460.48	448.89	37.7	37.9	39.0	12.18	12.15	11.51
Machinery	327.62	318.55	297.20	40.1	38.8	38.9	8.17	8.21	7.64
Copper Mining	526.51	523.38	485.26	40.1	39.5	38.3	13.13	13.25	12.67
Construction	441.50	456.96	461.16	37.8	38.4	36.0	11.68	11.90	12.81
Utilities	488.32	488.32	436.30	43.1	43.1	40.7	11.33	11.33	10.72
Retail Trade**	204.80	207.13	204.18	33.3	33.3	33.2	6.15	6.22	6.15
Wholesale Trade	344.00	344.56	322.65	40.0	40.3	39.3	8.60	8.55	8.21

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

ARIZONA'S ECONOMY
May 1983

Seven months ago, Arizona recorded its peak level of unemployment when the rate reached 11.2 percent. At that time we estimated that the unemployment rate would slowly fall, with most of the improvement coming as a result of stronger business in construction and manufacturing. That scenario has been followed quite closely in this recovery. Since early 1982, the construction industry has recovered 7,700 of the jobs that it had lost. And while manufacturing reached its low point only three months ago, 2,100 jobs have been recaptured. Clearly, the recovery has followed the slow path that many economists had predicted.

The total number of people unemployed has fallen 13,800 since its peak in July 1982 while employment has risen 36,000 over the same period. Unfortunately, the recovery has not been evenly distributed across the state. While most of the decline in unmeployment has occurred in the nonmetropolitan areas of the state, the additional employment has been added in the Phoenix and Tucson areas. The reasons for this phenomenon are varied, but it clearly shows the lack of economic growth in Arizona's rural areas. Jobs are not being created outside the metropolitan areas and rural residents are finding that they either have to leave the area to secure employment or they have left the labor force because jobs are not available and they do not wish to move.

The construction industry continued its strong performance in May, adding 1,900 around the state. In Maricopa County, employment was up 900 jobs and in Pima County, 800 people found work. Some of the additional employment was the result of highway construction, particularly in Arizona's northern counties. But the major source of this increase was residential home construction. In both the Phoenix and Tucson areas, home permit activity is running at very high, nearly record, levels. This rapid pace will likely slow as excess demand is satisfied and rising interest rates make home ownership more expensive. Demographic conditions continue to be favorable, but the recent rise in interest rates will seriously retard growth if this trend continues.

Likewise, the manufacturing industry was strong in May as employment increased by 400. Employment increases were generally small, but spread among many different companies and sectors. Of noteworthy significance was the increase in lumber employment of 300 jobs. The industry, which is so critical to Arizona's northern counties, has been depressed for nearly three years. Now both sawmills and logging operations are being reopened to satisfy the construction industry's demand for materials. We expect this industry to continue to expand employment in the months ahead, but to still operate below capacity.

Most of the other remaining industries displayed expected seasonal activity. An area of continuing concern is Arizona's copper industry. Prices have been quite stable the last few months and employment is just slightly above the level of nine months ago. Miners are watching the current contract negotiations closely. But unless significant changes occur soon, Arizona's mining communities will face increasing economic hardship.

Arizona Unemployment Insurance Activities

	April 1983	March 1983	April 1982	% Change From 1 Year Ago
Arizona Claimants Served**	64,017	67,452	46,930	+36.4%
Arizona Weeks Unemployed***	10.3	10.7	9.6	+ 7.3%
Arizona Benefits Paid**	$20,009,223	$23,761,819	$13,792,248	+45.1%
Arizona Trust Fund Balance	$173,990,232	$175,046,144	$276,317,449	-37.0%

*Estimated **All Programs ***UI Only

FIFTEEN ARIZONA AREAS QUALIFY FOR EMERGENCY JOBS PROGRAMS

Assistant Secretary of Labor Albert Angrisani recently announced the classification of 2,163 "civil jurisdictions" as having high unemployment, making them eligible as sites for emergency jobs programs. Fifteen of the areas were in Arizona.

The Emergency Jobs Act called for the establishment of a list of towns, cities, and counties that have high unemployment. At least 14 Federal cabinet and independent agencies will use the list to conduct a wide variety of public works and service programs under the auspices of the energy jobs legislation.

The designation of high unemployment areas is based on an average of each area's unemployment rate during calendar year 1982. To be included in the list of eligible areas, an area must have had an unemployment rate during 1982 that was at least 90 percent of the average rate for all states during the same 12-month period.

Since the average unemployment rate for all states during 1982 was 9.8 percent, the qualifying rate necessary for inclusion on the list was 8.8 percent.

The list will be updated monthly. The additions will be newly classified jurisdictions that were not on the initial list but which "have experienced or are about to experience a sudden economic dislocation resulting in job loss that is significant both in terms of the number of jobs eliminated and the effect upon the unemployment rate of the area."

Those Arizona areas, and the civil jurisdictions they include, are as follows:

Eligible High Unemployment Areas	Civil Jurisdiction Included
Apache County	Apache County
Cochise County	Cochise County
Coconino County	Coconino County
Gila County	Gila County
Graham County	Graham County
Greenlee County	Greenlee County
Balance of Maricopa County	Maricopa County less the cities of Glendale, Mesa, Phoenix, Scottsdale & Tempe
Mohave County	Mohave County
Navajo County	Navajo County
Balance of Pima County	Pima County less the city of Tucson
Pinal County	Pinal County
Santa Cruz County	Santa Cruz County
City of Tucson	City of Tucson
Yavapai County	Yavapai County
Yuma/La Paz Counties	Yuma/La Paz Counties

* * *

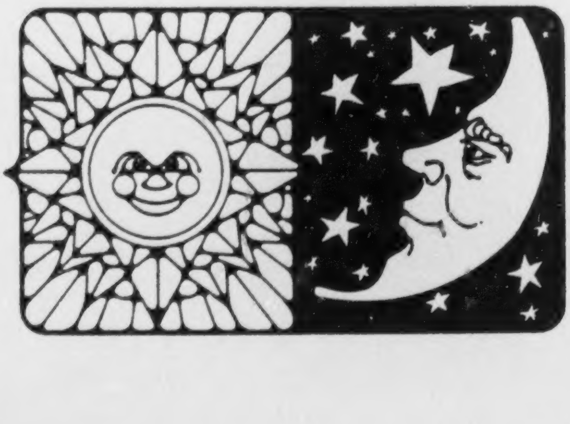
WORKING AROUND THE CLOCK

While some people have a hard time finding a job, others not only have a job--they have two or more. According to the Bureau of Labor Statistics, about 4.8 million people, including both wage and salary workers and the self-employed, worked two jobs or more in May 1980 (the most recent data for which figures are available).

The most common reasons a person moonlights are to increase one's income, to gain work experience, to make a hobby pay for itself, and to help a friend. The median workweek for the average moonlighter on their primary job was 40 hours. An additional 13 hours, on average, were spent at another paying job.

Married men are most likely to be multiple job holders, although their dual job-holding rates declined from 7.8 percent to 6.2 percent between 1970 and 1980. In contrast, the rates for married women rose from 1.8 to 3.4 percent.

The workers most likely to take a second job are those in professional and technical occupations who work for someone else. Teachers below the college level were found to be particularly likely to hold a second job. Workers in the protective services (police, guards, and firefighers) and farm workers also had higher-than-average dual job-holding rates.



DANGER, DANGER!

If you are a regular user of labor force and employment by industry statistics, beware of annual benchmark and CPS revisions. All monthly and annual average estimates for the state and all its counties have been revised from 1978 through 1982. Statistics appearing in all NEWSLETTERS prior to March 1983 are no longer valid. If you would like copies of the revised tables, please specify which labor market areas you need and write to: Labor Force Statistics, Site Code 733A, P.O. Box 6123, Phoenix, Arizona 85005, or call (602) 255-3686.

CONTRIBUTING ARTICLES

The Arizona Labor Market Newsletter welcomes communications that supplement, challenge, or expand on research published in its pages. To be considered for publication, articles should be factual and analytical, and related to the labor market, economy, or occupation trends. Articles are subject to editing for size. Sorry, no fees paid. Communications should be addressed to Editor, Arizona Labor Market Newsletter, P.O. Box 6123, Site Code - 733A, Phoenix, Arizona 85005.

NEW LMI PUBLICATIONS

A revised issue of the Map of Major Employers in Central Pima County is now available. The names, addresses, and phone numbers of major employers in the Tucson area are listed with a coded map for those unfamiliar with the area. Also included is a separate listing of names and addresses of large shopping centers.

One copy of the above publication may be obtained free by writing: Labor Market Information Publications 733A, P.O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of printing.

NEW DEVELOPMENTS

Agriculture - The value of Arizona crops totaled $745.8 million in 1982, a drop of about 8 percent from 1981, according to the Arizona Livestock Crop Reporting Service. Cotton production decreased the most.

Construction - A Holiday Inn convention center is planned for 10 acres of land near Prescott. The center will include a 150-room hotel. Long-term plans include 100 timesharing townhouses valued at $75,000 each. Open air theaters are also to be built. Completion is scheduled for mid-1985.

Pioneer Development Co. is having a $3 million, 21,588-square-foot garden complex built for them at 5300 N. Central in Phoenix. The project is expected to be completed by September.

Family Budgets - A family of four must earn $24,190 in 1983 to maintain the purchasing power of $10,000 income in 1970, according to the Conference Board.

Manufacturing - AiResearch Manufacturing Co. has exercised its option to buy 80 acres on North Oracle Road at the base of Pusch Ridge for an electronics plant in Tucson. The company plans to operate in 20,000 to 60,000 square feet of leased space this fall. Construction on the site will begin early in 1984 and is expected to be completed one year later.

Goodyear Aerospace Corp. opened an assembly facility in June in Tucson which eventually could employ as many as 100 persons. To begin with, though, there will be eight employees hired locally and a supervisor who will be transferred from Litchfield Park. The staff will be assembling portable housing for electric radar equipment.

A new $3 million ice-cream distribution center has been built for the Carnation Co. at 24th St. and Southern in Phoenix. The firm will retain its former facility at 4140 N. Central for other uses.

M & D Electric Remanufacturing, a rebuilder of automobile electric parts, has announced a $1.4 million expansion of its facilities in Reywest Industrial Center, 2 N. 35th Ave. in Phoenix.

About 400 employees, half each in Tucson and Nogales, Arizona, were laid off when the clothing manufacturing plants for Irvine Industries Inc. closed in early June. Irvine had manufactured sports coats and men's suits in the two plants. Irvine will continue to operate a retail outlet in Nogales.

Hallmark Jet Center of Omaha, Neb., recently announced the formation of its new ultralight manufacturing division, Hallmark Aircraft Corp., in Chandler. Hallmark Aircraft manufactures a refined version of the MAC ultralight line in its new 8,000-square-foot facility.

Trade - Because plans for a large shopping mall in Sierra Vista have been delayed indefinitely, the J.C. Penneys store in Bisbee will remain open. Penneys had planned to open a store in the $9.5 million mall in 1984, but problems in contracting between the developers and store tenants has postponed the project.

Mervyn's plans to open a third store in Tucson in a remodeled 78,000-square-foot building at East Broadway and Craycroft roads. Each Mervyn's store employs about 200 people, mostly part time. This third store is scheduled to open by fall.

S-M Pizza, Inc., Phoenix, a division of Scurr Messenger Investment Co., has announced plans to build four Show Biz Pizza Place franchises in the Phoenix area, the first to open later this summer. Show Biz Pizza Place currently operates more than 135 centers in addition to the 26 franchises now open.

8/22/83 30465-1 13

Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VII No. 8
August 1983

Unemployment Rate

Seasonally Adjusted
June*

ARIZONA	9.9%
Maricopa Co.	7.5%
Pima Co.	9.3%
UNITED STATES	10.0%

Consumer Price Index

National-May
1967 - Base Year

Wage Earner/Clerical Worker -	296.3
% Chg. Yr. Ago	3.4
All Urban -	297.1
% Chg. Yr. Ago	3.5

Phoenix-2nd Qtr.
1977 - Base Year

All Urban -	170.5
% Chg. Yr. Ago	0.9

Producer Price Index

National-April*
1967 - Base Year

All Commodities -	301.7
% Chg. Yr. Ago	1.0
Finished Goods -	284.3
% Chg. Yr. Ago	2.3

* Preliminary

Preview:
Arizona Occupational Supply/Demand 1983

Arizona LMI is back for a second try to identify Arizona occupations in demand and in surplus. Last year's first attempt was applauded by many, and criticized by some. All in all, enough interest was generated to encourage ongoing development of an improved system. In addition, there is a continuing demand for such information in the language of the Job Training Partnership Act, JTPA, which is replacing the Comprehensive Employment and Training Act, CETA. In Arizona, there is also demand through a new statute calling for county-wide planning for vocational education, and articulation of voc. ed. programs between high schools and community colleges.

The table of occupational supply and demand on page 3 provides a selected list of occupations from the upcoming supply/demand report. It is a list of engineers, technicians, and computer occupations often associated with the term "high-tech". Known supply and demand for the near term are provided in absolute numbers and three of seven indicators from the upcoming comprehensive report are listed. They include an occupational unemployment rate, and ratios of unemployed to total projected openings and graduates from Arizona's secondary and postsecondary education and training institutions to total projected openings. Total projected openings include those from industry growth, and separations from the labor force, but not

(continued on pg. 2)

from turnover. Finally, there is a determination whether the occupational supply and demand is in balance, or whether surplus or demand for the occupation is indicated.

In some cases there was insufficient information to make a determination of demand, balance, or surplus. That occurred when there were no Job Service applicants listed for the occupation making it impossible to estimate an unemployment rate. It is possible there are no Job Service applicants listed only because the ESARS Table 96 report from which these are taken does not have that occupation among the preselected national list of occupations required for reporting. Those who are concerned that Job Service data do not include all the unemployed should take note that nearly all claimants for unemployment insurance are registered. In addition the J.S. data include many new and re-entrants to the labor force. In cases where a determination is made, it is based on the three indicators shown as they relate to the average for all occupations. Determination in the upcoming report will be based on seven indicators including growth rates for one and five years, and a Job Service applicants to openings ratio.

THE OUTCOME

Most of the selected high-tech occupations appear to be in demand. Bearing in mind that the current overall number of unemployed represents a surplus and the overall rate of 9.6 percent on an annual average basis year-to-date is well above an amount to be expected from frictional unemployment alone. Most of the economic literature sets a "normal" frictional unemployment rate somewhere in the neighborhood of 5%. In years past, it had been set closer to 3 percent, but the influx of women and youth into the labor force has caused it to be raised to 5. Scanning the unemployment rates of the selected high-tech occupations reveals only a few with rates above 5 percent. They include chemical and mechanical engineers, and computer operators. These are also the three occupations determined to be in balance or surplus with consideration of the other two indicators. Computer operators are the only group in surplus.

The final report should be ready next month. All improvements and any other changes from last year's report will be explained. We hope it will be especially useful to employment and training, and vocational education planners.

- - - Ron Simon

NATIONAL NEWS RELEASES AVAILABLE ELECTRONICALLY

The Bureau of Labor Statistics (BLS) has inaugurated an electronic news release service that permits persons interested in the Bureau's national economic indictors to gain access directly from the computer in which they are stored.

Cost of the electronic news releases, which can be transmitted over telephone lines to computer terminals and other remote access devices anywhere in the world, ranges from $8 to $15 per release, plus the cost of the telephone call.

BLS will continue to make its releases available in the conventional manner. The data is available in periodicals published by the Bureau and sold by the Government Printing Office; on computer tape, sold by BLS; and in some instances, via Mailgram and in microform.

Information about electronic news releases and about BLS data in other forms is available from the Office of Publications, Bureau of Labor Statistics, Washington, D.C. 20212

Arizona Occupational Supply & Demand Indicators

OCCUPATION	SUPPLY				DEMAND				S/D INDICATORS			
	Employment 1983	Unemployed 1983	Job Service Applicants 1982	Graduates & Completers 1982	Projected Employment 1984	Employment Growth 83-84	Projected Openings 1984	Job Service Openings 1982	Unemployment Rate 1983	Unemployed To Openings Ratio 1983	Graduates To Openings Ratio 1983	Surplus, Balance or Demand
All Occupations	1,216,200	128,300	270,211	56,519	1,265,800	49,600	91,119	79,330	9.6	1.4	0.6	Surplus
Engineers	18,406	254	535	1,104	19,863	1,457	1,779	89	1.4	0.1	0.6	Demand
Aeronautical	1,648	0	0	66	1,756	108	132	0	0	0	.5	***
Chemical	164	12	25	80	175	11	13	3	6.8	0.9	6.2	Balance
Civil	1,923	60	127	232	2,040	117	179	16	3.0	0.3	0.3	Demand
Electrical	8,022	37	78	356	8,678	656	773	24	0.5	.0	1.6	Demand
Industrial	1,978	29	63	55	2,170	192	229	4	1.4	0.1	0.2	Demand
Mechanical	2,076	114	242	212	2,235	159	191	42	5.2	0.6	1.1	Balance
Metallurgical	194	0	0	13	221	27	30	0	0	0	7.3	***
Mining	159	0	0	44	183	24	30	0	0	0	1.5	***
Petroleum	15	0	0	0	17	2	2	0	0	0	8.5	***
Nuclear	56	0	0	39	65	9	10	0	0	0	3.9	***
All Other	2,171	0	0	7	2,323	152	190	0	0	0	0.0	***
Engineering Technicians	9,292	6	13	189	9,810	518	754	6	0.1	0	0.3	***
Civil	1,661	0	0	7	1,737	76	130	0	0	0	0.1	***
Industrial	127	3	7	8	136	9	12	0	2.3	0.3	0.7	Demand
Mechanical	1,067	0	0	0	1,146	79	88	0	0	0	0	***
All Other Engineers	6,437	3	6	174	6,791	354	524	6	0	0.1	0.3	Demand
Other Technicians	10,928	378	797	486	11,688	760	950	82	3.3	0.4	0.5	Demand
Electrical & Electronic	7,869	368	774	486	8,481	612	725	54	4.5	0.5	0.7	Demand
Mathematical Techs	37	0	0	0	38	1	1	0	0	0	0	***
All Other Science Techs	3,022	11	23	0	3,169	147	224	28	0.4	0	0	***
Tech Support Occupations	5,124	126	265	849	5,435	311	722	48	2.4	0.2	1.2	Demand
Drafters	4,061	105	222	817	4,308	247	330	47	2.5	0.3	2.5	Demand
Surveyors	1,063	20	43	32	1,127	64	81	1	1.8	0.2	0.4	Demand
Computer Professionals	6,291	198	416	1,303	6,682	391	464	106	3.1	0.4	2.8	Demand
Computer Programmers	3,131	105	222	1,099	3,342	211	250	64	3.2	0.4	4.4	Demand
Systems Analysts, EDP	3,160	192	194	204	3,340	180	214	42	2.8	0.4	1.0	Demand
Computer Support Occup.	7,145	466	981	342	7,476	331	640	246	6.2	0.7	0.5	Balance
Computer Operators	2,805	363	766	156	2,951	146	221	56	11.5	1.6	0.7	Surplus
Peripheral Equip. Ops.	718	0	0	0	750	32	74	0	0	0	0	***
Keypunch & Data Entry	3,622	102	215	186	3,775	153	345	190	2.7	0.3	0.5	Demand

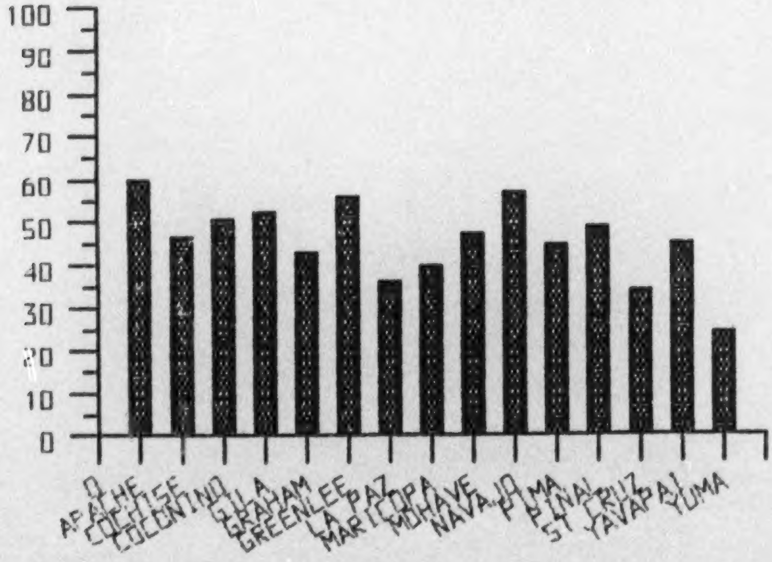
*** Insufficient Information for a Determination

NEW INFORMATION REGARDING UI "SURVIVORS"

The percentage of unemployed workers covered by the Unemployment Insurance (UI) system is calculated each month by procedures specified in the "Handbook on Estimating Unemployment". The largest estimated component involved in calculating this statistic is the number of "Survived Exhaustees" (or survivors, for short). A claimant who has collected all of, or exhausted, his unemployment benefits is referred to as an exhaustee. Persons who are exhaustees and remain unemployed are classified as survivors. In this context, one would not wish to be a survivor for very long! During the time period from February 1981 to January 1982 over 18,000 UI claimants exhausted their benefits. A contract with the Bureau of Labor Statistics allowed the UI Reseach and Reports Section to monitor the labor force status of these exhaustees for the six month period immediately following the issuance of their final payment.

The results of this survey show that nearly half of those exhaustees responding were still unemployed (or surviving) after six months. This group would tend to be made up of the very hard-core unemployed as they have stayed unemployed for six months and have survived for an additional six months without the benefit of receiving UI payments. The average duration of unemployment after exhaustion of benefits was found to be 18.7 weeks. The length of this duration is dependent upon economic conditions and tends to be longer during times of economic hardship. Currently, due to the length of the recession and its effect on this duration, special federal programs have been enacted to extend UI payments beyond the usual 26 weeks. The Federal Supplemental Compensation program now allows claimants to receive payments for an additional eight weeks after exhausting their regular UI benefits.

Percentage of Survey Respondents
Remaining Unemployed
6 Months After Exhausting Benefits



A very interesting finding of this survey was that fewer women remained unemployed at the end of the six month period than men. This is due to the fact that over twice as many women dropped out of the labor force than men. Only 5.5 percent of the men in the survey dropped out of the labor force over the six month period as opposed to 13.7 percent of the women. Surprisingly, there was no significant difference between the percentages of whites and Hispanics surviving after six months (40.3 percent and 41.7 percent respectively). These rates were both significantly lower than those for blacks (55.4 percent) and Native Americans (61.3 percent). The accompanying graph shows the percentages of respondents surviving in the final survey week by county. These percentages are determined by economic conditions in each of the 15 counties, with higher rates indicating greater difficulty in finding suitable employment after exhaustion of benefits. Apache and Navajo counties had the highest rates with 60.1 percent and 56.9 percent respectively. Santa Cruz and Yuma counties enjoyed the lowest percentages of survivors, with only 33.6 percent and 23.9 percent respectively, remaining unemployed in the final week.

The UI Research and Reports Section is currently investigating low cost methods of incorporating this area-specific information into the present estimating procedure. California and Utah are also performing similar research in this area in a continuing effort to produce more accurate population statistics.

- - - Jerry Haupt

POVERTY LEVEL RAISED

The level of family income used to determine whether or not a person is poor has been raised by the U.S. Department of Labor to reflect increases in consumer prices over the past year. The revised poverty-level guidelines became effective April 1, 1983, based on the Office of Management and Budget (OMB) recommendations.

Poverty Income Guidelines
for Continental United States

Size of Family*	1983	1982	
		Nonfarm	Farm
1	$4,860	$4,680	$4,010
2	6,540	6,220	5,310
3	8,220	7,760	6,610
4	9,900	9,300	7,910
5	11,580	10,840	9,210
6	13,260	12,380	10,510

*For units with more than six members, add $1,680 in 1983 and $1,540 in 1982 for nonfarm, and $1,300 for farm. 1983 estimates are for both farm and nonfarm families.

NATIONAL DATA BY PHONE

A recorded summary of principal national Consumer Price Index, Producer Price Index, and Employment Situation numbers is available 24 hours a day by calling (202) 523-9658.

JOBS IN HIGH-TECH INDUSTRIES
REVISITED

Remember our June article on high tech industries? It seems to have provoked more than an average share of controversy in the media. Although it was never intended to be controversial, or invidiously critical of political leaders, it may have been so construed by some. In order to clarify the viewpoint stated in the article, perhaps additional articulation is in order.

First, the article's main point was that because high-tech is now a relatively small component of all Arizona industries, it is unlikely to become a majority employer in this state. The second point followed by implication from the first, that is: if it is not likely to be more than an expanded minority employer, it makes little sense to demand a high-tech education of every high school or college student. It did not imply that improved education for all is not a worthy goal.

Using statewide data instead of Maricopa County data as in the original article, it still holds that the sum of high-tech employment is small. For instance in 1983 through April, the three high-tech industries, Machinery, except electrical, Electrical Machinery and Ordnance and Aircraft manufacturing employed 76,500 or 7.4 percent of the total of all Arizona wage and salary workers. The sum of the true high-tech jobs within the top ten jobs found in each of those industries is 15,561 or 1.5 percent of the total jobs.

Looking at it another way, though, may explain some of the excitement for high-tech in Arizona. Growth of the industry has been phenomenal over the last 30 years when the measure used is growth rates. The table of high-tech, manufacturing, and wage and salary employment growth shows the dramatic change. High-tech industries have grown to eight times their 1953 size while overall wage and salary employment and manufacturing employment have each grown to only five times the 1953 amount. A growth rate of 814 percent in 30 years is, without a doubt, impressive.

Phenomenal growth rates notwithstanding, however, employment in high-tech grew from a very low base of 9,400 total employed statewide in 1953 to 76,500 now. With all the talk of future growth in the industry, it may very well be that those rates will accelerate substantially. Arizona may, indeed, be poised for a quantum jump in high-tech employment. Seldom has there been a more coordinated effort to achieve just such a goal. The Center for Excellence in Engineering at Arizona State University, the new research park also under development by ASU, IBM's growing plant in Tucson, Hughs Helicoper in Mesa, and the presence of Motorola, Digital, GTE, Intel and other growing high-tech firms in Maricopa County are all manifestations of Arizona's potential for a high-tech boom.

It is appropriate that the growth of high-tech be encouraged by anyone in the state who can help. High-tech is a basic industry that brings wealth from outside the local economy. It is able, therefore, to support other jobs within the economy, and to have a multiplier effect on increased employment in many supporting industries.

On the other hand, it is not appropriate to imply that all, or even most, Arizona workers will be high-tech workers. No, fewer than one in ten will be. Arizona, like the United States, is becoming more and more a service economy. Growth rates of the last ten years by industry support that conclusion, unless there is a dramatic reversal of the trend. In fact, the high-tech industries growth rate dropped below overall wage and salary employment's rate of growth while the growth of services has exceeded it by 28 percent in the last ten years. In addition, the services industry is already three times the size of the high-tech group. It can only follow that services will be the dominant kind of employment in Arizona in the years ahead.

- - - Ron Simon

Arizona Wage and Salary, Manufacturing, and High-Tech Employment Growth
1953-1983

	Employment (in thousands)				Percent Increase			
	1953	1963	1973	1983	53-63	63-73	73-83	53-83
High-Tech (SIC's 35, 36, 37)	9.4	24.8	51.8	76.5	264	209	148	814
Manufacturing	29.4	58.0	110.2	148.9	197	190	135	506
Wage & Salary	207.5	377.2	677.3	1,039.0	182	180	153	501
Trade	50.1	89.8	159.4	256.0	179	178	161	511
Services	28.0	59.6	115.0	225.0	213	193	196	804

EXPORTING MANUFACTURED GOODS MEANS JOBS

There were 4.8 million jobs associated with the export of manufactured goods in the United States in 1981, with 53,700 of them in Arizona. A recently released report issued by the Bureau of the Census, U.S. Department of Commerce, highlights the importance of the export of manufactured goods in the nation.

According to the report, Origin of Exports of Manufactured Products, export - related jobs, constituted 4.7 percent of the nation's civilian employment, but only represented 4.4 percent of Arizona's civilian employment. While Arizona's share of export - related jobs may be lower than the national average, it is much greater than that of such neighboring states as Colorado (3.3 percent of work force), Nevada (1.2 percent), New Mexico (1.7 percent), and Utah (3.3 percent).

However, California still leads the states with the largest number of export - related jobs, 526,500, representing 4.7 percent of the work force. But in terms of percent of the state's civilian employment, Connecticut and Washington lead with 7.1 percent and 6.5 percent, respectively.

Within the manufacturing sector, exports accounted for 12.8 percent of the total U.S. manufacturing employment in 1981. In Arizona, 32,100 jobs (or 20 percent) in the manufacturing industry were export - related. The remaining nonmanufacturing industries in Arizona that accounted for export - related jobs were trade, 9,600 jobs; business services, 4,200; transportation/communication/public utilities, 2,000; the remaining nonmanufacturing industries (including mining and agriculture) 5,800.

The employment data for manufacturing producing the exported goods were based on data collected as part of the Census Bureau's Annual Survey of Manufacturers. Although a number of economic assumptions used are believed to be reasonable, the resulting indirect estimates may not be as precise as other census statistics.

The report can be purchased for $2.75 prepaid from Data User Services Division, Customers Services (Publications), Bureau of the Census, Washington, D.C. 20233.

June 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Jun.* 1983	May. 1983	Jun. 1982	May. to Jun.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1329.0	1340.1	1324.7	-11.1	+4.3
Total Unemployment	136.9	135.1	138.4	+1.8	-1.5
Rate	10.3	10.1	10.4	---	---
Rate (Sea. Adj.)**	9.9	10.4	10.0	---	---
Total Employment	1192.1	1205.0	1186.3	-12.9	+5.8

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Jun.* 1983	May. 1983	Jun. 1982	May. to Jun.	1982 to 1983
TOTAL WAGE AND SALARY	1027.8	1043.5	1019.4	-15.7	+8.4
Manufacturing	152.1	150.2	154.2	+1.9	-2.1
Durable Goods	118.4	116.4	120.0	+2.0	-1.6
Stone, Clay and Glass	5.7	5.6	5.2	+0.1	+0.5
Primary and Fabricated Metals	14.4	14.1	15.2	+0.3	-0.8
Primary Metals	6.6	6.5	7.2	+0.1	-0.6
Fabricated Metals	7.8	7.6	8.0	+0.2	-0.2
Machinery	60.3	59.6	62.0	+0.7	-1.7
Other Durable Goods	38.0	37.1	37.6	+0.9	+0.4
Aircraft and Missiles	17.3	17.1	17.7	+0.2	-0.4
Lumber and Wood Products (Except Furniture)	5.7	5.4	5.1	+0.3	+0.6
All Other Durable Goods	15.0	14.6	14.8	+0.4	+0.2
Nondurable Goods	33.7	33.8	34.2	-0.1	-0.5
Food and Kindred Products	8.2	8.1	8.5	+0.1	-0.3
Apparel	4.5	4.8	5.0	-0.3	-0.5
Printing and Publishing	11.8	11.8	11.3	+0.0	+0.5
All Other Nondurable Goods	9.2	9.1	9.4	+0.1	-0.2
Mining and Quarrying	15.8	15.8	17.9	+0.0	-2.1
Copper Mining	12.8	12.8	14.8	+0.0	-2.0
Other Mining and Quarrying	3.0	3.0	3.1	+0.0	-0.1
Construction	73.0	70.9	65.7	+2.1	+7.3
Trans., Communications, and Public Utilities	55.8	55.8	56.8	+0.0	-1.0
Transportation	23.5	23.3	23.7	+0.2	-0.2
Communications and Public Utilities	32.3	32.5	33.1	-0.2	-0.8
Trade	253.8	255.4	252.0	-1.6	+1.8
Wholesale Trade	50.8	51.0	50.5	-0.2	+0.3
Retail Trade	203.0	204.4	201.5	-1.4	+1.5
General Merchandise and Apparel	36.4	36.4	37.5	+0.0	-1.1
Food Stores	32.1	32.4	32.3	-0.3	-0.2
Automotive and Service Stations	24.3	24.3	24.6	+0.0	-0.3
Eating and Drinking Places	69.8	71.0	67.6	-1.2	+2.2
Other Retail Trade	40.4	40.3	39.5	+0.1	+0.9
Finance, Insurance, and Real Estate	62.6	62.4	61.8	+0.2	+0.8
Services and Miscellaneous	225.4	225.6	221.6	-0.2	+3.8
Hotels and Other Lodging Places	23.3	24.2	22.9	-0.9	+0.4
Business Services	42.1	41.5	41.1	+0.6	+1.0
Health Services	62.6	62.2	61.3	+0.4	+1.3
Other Services	97.4	97.7	96.3	-0.3	+1.1
Government	189.3	207.4	189.4	-18.1	-0.1
Federal	38.4	38.6	37.9	-0.2	+0.5
State and Local	150.9	168.8	151.5	-17.9	-0.6
School	82.6	103.9	82.6	-21.3	+0.0

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

June 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Jun.* 1983	May. 1983	Jun. 1982	May. to Jun.	1982 to 1983	Jun.* 1983	May. 1983	Jun. 1982	May. to Jun.	1982 to 1983
809.1	816.0	803.2	-6.9	+5.9	249.3	252.0	246.3	-2.7	+3.0
64.1	64.6	65.2	-0.5	-1.1	24.1	24.8	25.3	-0.7	-1.2
7.9	7.9	8.1	---	---	9.7	9.8	10.3	---	---
7.5	8.1	7.7	---	---	9.3	10.2	9.9	---	---
745.0	751.4	738.0	-6.4	+7.0	225.2	227.2	221.0	-2.0	+4.2

BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

655.3	663.5	646.8	-8.2	+8.5	193.1	195.9	189.1	-2.8	+4.0
109.2	107.6	112.0	+1.6	-2.8	26.6	26.3	25.9	+0.3	+0.7
86.4	84.8	88.8	+1.6	-2.4	21.7	21.4	21.1	+0.3	+0.6
3.5	3.4	3.1	+0.1	+0.4					
9.2	8.9	10.2	+0.3	-1.0					
47.9	47.1	49.7	+0.8	-1.8					
25.8	25.4	25.8	+0.4	+0.0					
22.8	22.8	23.2	+0.0	-0.4	4.9	4.9	4.8	+0.0	+0.1
5.6	5.6	6.0	+0.0	-0.4					
2.1	2.1	2.5	+0.0	-0.4					
8.6	8.6	8.3	+0.0	+0.3					
6.5	6.5	6.4	+0.0	+0.1					
0.6	0.6	0.4	+0.0	+0.2	3.7	3.7	4.9	+0.0	-1.2
49.4	48.0	44.2	+1.4	+5.2	14.4	13.7	12.2	+0.7	+2.2
35.2	34.9	35.7	+0.3	-0.5	8.8	8.7	9.2	+0.1	-0.4
15.1	15.0	15.1	+0.1	+0.0	3.9	3.8	4.0	+0.1	-0.1
20.1	19.9	20.6	+0.2	-0.5	4.9	4.9	5.2	+0.0	-0.3
169.1	170.0	167.8	-0.9	+1.3	43.0	43.3	43.0	-0.3	+0.0
40.8	40.6	40.3	+0.2	+0.5	6.0	5.9	6.0	+0.1	+0.0
128.3	129.4	127.5	-1.1	+0.8	37.0	37.4	37.0	-0.4	+0.0
22.9	22.9	24.0	+0.0	-1.1	6.8	6.9	6.9	-0.1	-0.1
20.4	20.6	20.6	-0.2	-0.2	5.2	5.3	5.2	-0.1	+0.0
14.7	14.6	14.9	+0.1	-0.2	4.4	4.4	4.4	+0.0	+0.0
42.8	43.9	41.1	-1.1	+1.7	13.1	13.3	13.3	-0.2	-0.2
27.5	27.4	26.9	+0.1	+0.6	7.5	7.5	7.2	+0.0	+0.3
48.4	48.3	48.2	+0.1	+0.2	9.1	9.0	8.5	+0.1	+0.6
149.2	150.1	145.4	-0.9	+3.8	44.3	44.3	42.9	+0.0	+1.4
13.2	14.5	12.8	-1.3	+0.4	3.2	3.4	3.2	-0.2	+0.0
34.4	33.8	33.5	+0.6	+0.9	6.1	6.0	5.9	+0.1	+0.2
41.6	41.3	40.3	+0.3	+1.3	13.6	13.6	13.6	+0.0	+0.0
60.0	60.5	58.8	-0.5	+1.2	21.4	21.3	20.2	+0.1	+1.2
94.2	104.0	93.1	-9.8	+1.1	43.2	46.9	42.5	-3.7	+0.7

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

Nonmetropolitan Counties Labor Force and Employment

June 1983 (preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,825	28,975	35,450	15,125	8,950	3,250	5,000
Total Unemployment	3,950	3,250	4,750	3,725	2,275	200	875
Rate	25.0%	11.2%	13.4%	24.6%	25.4%	6.2%	17.5%
Rate (Seas. Adj.)**. . . .	24.3%	10.9%	12.8%	24.6%	24.8%	6.2%	INA
Total Employment	11,875	25,725	30,700	11,400	6,675	3,050	4,125

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY . . .	12,500	21,250	29,450	9,400	4,150	2,950	2,425
Manufacturing	475	1,600	2,350	1,225	100	350	100
Mining and Quarrying	25	425	50	1,650	75	1,625	0
Construction	1,450	775	1,100	350	150	25	100
Trans., Comm., & Pub. Util..	1,725	1,425	2,225	300	175	50	50
Trade	1,025	4,100	7,175	1,775	1,325	300	875
Fin., Insur., & Real Estate.	125	550	775	225	125	25	125
Services and Miscellaneous .	2,900	2,700	7,275	1,625	625	75	625
Government	4,775	9,675	8,500	2,250	1,575	500	550

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,150	24,950	32,475	9,025	31,825	37,650
Total Unemployment	3,425	5,375	6,650	2,450	2,875	8,825
Rate	15.5%	21.5%	20.5%	27.1%	9.0%	23.4%
Rate (Seas. Adj.)**. . . .	15.1%	21.7%	19.8%	26.2%	9.3%	INA
Total Employment	18,725	19,575	25,825	6,575	28,950	28,825

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY . . .	14,525	15,575	22,175	6,600	17,575	21,075
Manufacturing	2,075	1,525	2,325	750	1,875	1,525
Mining and Quarrying	275	1,100	5,125	25	1,075	75
Construction	975	725	525	175	1,100	1,775
Trans., Comm., & Pub. Util..	950	1,675	925	525	850	975
Trade	4,350	3,350	3,650	2,700	4,600	6,500
Fin., Insur., & Real Estate.	625	300	575	250	750	675
Services and Miscellaneous .	2,575	3,275	2,070	875	3,500	3,775
Government	2,700	3,625	6,975	1,300	3,825	5,775

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Arizona Labor Force and Employment for Economic Assistance Programs

May 1983 (preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,331,102	1,197,144	133,958	10.1%
Apache	15,408	12,295	3,113	20.2
Cochise	28,746	25,424	3,322	11.6
Coconino	34,341	31,123	3,218	9.4
Gila	15,417	11,170	4,247	27.5
Graham	9,212	6,795	2,417	26.2
Greenlee	3,268	3,031	237	7.3
La Paz	5,058	4,194	864	17.1
Maricopa	809,930	745,998	63,932	7.9
Mohave	22,655	19,026	3,629	16.0
Navajo	23,899	20,123	3,776	15.8
Pima	250,316	225,675	24,641	9.8
Pinal	33,408	26,774	6,634	19.9
Santa Cruz	8,684	6,840	1,844	21.2
Yavapai	31,989	28,945	3,044	9.5
Yuma	38,771	29,731	9,040	23.3

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

Estimated Hours and Earnings of Production Workers in Selected Industries in Arizona

June 1983 (preliminary)

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	JUNE* 1983	MAY 1983	JUNE 1982	JUNE* 1983	MAY 1983	JUNE 1982	JUNE* 1983	MAY 1983	JUNE 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	371.59	359.79	344.18	40.7	40.2	39.2	9.13	8.95	8.78
Aircraft & Missiles	465.50	475.30	443.81	41.6	42.4	41.4	11.19	11.21	10.72
Food & Kindred Products	332.82	332.82	308.15	38.7	38.7	40.6	8.60	8.60	7.59
Primary Metals	464.36	457.07	448.87	38.6	37.9	39.1	12.03	12.06	11.48
Machinery	356.01	326.80	303.03	41.3	40.0	39.0	8.62	8.17	7.77
Copper Mining	529.94	517.72	489.34	40.3	39.4	38.2	13.15	13.14	12.81
Construction	448.53	442.67	458.64	38.8	37.9	36.0	11.56	11.68	12.74
Utilities	487.10	487.10	430.92	42.1	42.1	40.5	11.57	11.57	10.64
Retail Trade**	210.91	208.12	207.59	33.8	33.3	33.7	6.24	6.25	6.16
Wholesale Trade	339.83	343.71	320.62	39.7	40.2	39.1	8.56	8.55	8.20

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

THE ARIZONA LABOR FORCE IN JUNE 1983

The recovery in Arizona appears to be gaining strength. While expected school closings caused government employment to drop 18,100, continued growth in the manufacturing and construction industries improve the outlook for continued progress. As has been true during the last few months, most of the employment gains have been recorded in Maricopa and Pima counties. Since the first of the year, manufacturing and construction have recovered 11,100 of the 43,000 jobs that were lost during the recession, and nearly all of that has occurred in the metropolitan areas.

Manufacturing employment growth was concentrated among the State's durable goods manufacturers. With home building activity continuing to rise, lumber companies and others that supply the construction industry are experiencing significant increases in business. As well, many electronics and defense - related companies are also expanding their staffs. With sales of semiconductors and related components rising rapidly, companies are expanding the workweek of existing staff and hiring new employees as well. During June, average weekly hours in manufacturing added 30 minutes.

Recovery in the construction industry is now 15 months old and the rate of increase is growing with each passing month. After posting an increase of 2,100 jobs in June, the industry has now recovered over one-third of the jobs it had lost. And while interest rates have increased recently, building activity has been little affected. Residential building is still the biggest area, with commercial and various heavy construction projects composing a smaller proportion of the industry.

Little else noteworthy was recorded in Arizona's employment picture during June. As mentioned earlier, the drop in government employment was related to summer vacations at the various schools. Hot desert temperatures reduced trade and services employment in the Phoenix and Tucson areas, but helped to expand similar employment in northern Arizona. And the mining industry continues to languish with nearly 40 percent fewer people than were employed two years ago.

Our final point deserves attention. While the unemployment rate has dropped significantly in the last few months, it apparently overstates the improvement the economy is experiencing. The decline in the number of people unemployed is significantly greater than the increase in employment. The implication is that while some people are leaving the ranks of the unemployed to claim a job, many are simply leaving the local labor force. This is most pronounced in Arizona's rural areas. Possibly they are leaving for employment elsewhere, or they have become discouraged and have quit looking for work.

Arizona Unemployment Insurance Activities

	May 1983	April 1983	May 1982	% Change From 1 Year Ago
Arizona Claimants Served**	62,346	64,017	45,740	+36.3%
Arizona Weeks Unemployed***	10.8	10.3	9.3	+16.1%
Arizona Benefits Paid**	$20,122,352	$20,009,223	$13,284,284	+51.5%
Arizona Trust Fund Balance	$186,352,152	$173,990,232	$282,000,632	-33.9%

*Estimated **All Programs ***UI Only

SOLDIERS WORK, TOO

Is working for General Jones the same thing as working for General Motors? The U.S. Department of Labor believes it is. Beginning January 1983, the Bureau of Labor Statistics began to offer users a new data series that include members of the Armed Forces stationed in the United States in the labor force.

The idea of having resident Armed Forces members included in the employed count was one of many recommendations made by a Presidentially-appointed commission in 1979. The commission argued that with the abolition of the draft, employment in military services no longer is substantially different from employment elsewhere. The rate that includes the Armed Forces in the labor force base will be fractionally lower than the one that includes only the civilian labor force. Both rates will be published on a regular basis.

The addition of the resident Armed Forces to the number employed will add about 1.7 million to the civilian level. Included will be those persons on active military duty stationed in any of the 50 states; persons on active duty with the Coast Guard, Army, Air Force, and Marine reserve forces on active duty training or tours for extended periods; and National Guard personnel on initial active duty training. Navy personnel on ships are counted in the resident Armed Forces if their ship's home port is in the United States and the ship is not deployed to the Mediterranean, the Mideast, the Far East, or the Indian Ocean.

State and local labor force estimates will continue to be on a civilian basis. Because the Armed Forces are isolated from the local labor market (they do not contribute employment opportunities or in general provide a source of workers for civilian jobs in the community), the National Commission recommended that the military not be included in state and local area statistics. Therefore, when comparing jobless rates for the nation as a whole with those for states or specific areas, the civilian-based rate should be used.

Comparison of Seasonally Adjusted Unemployment Rates

Month	Civilian Basis	Including Resident Armed Forces
January 1982	8.6%	8.4%
February	8.8	8.7
March	9.0	8.9
April	9.3	9.2
May	9.4	9.3
June	9.5	9.4
July	9.8	9.7
August	9.9	9.7
September	10.2	10.1
October	10.5	10.3
November	10.7	10.6
December	10.8	10.7
Annual Average	9.7	9.5
January 1983	10.4	10.2
February	10.4	10.2
March	10.3	10.1
April	10.2	10.1
May	10.1	10.0

NEW DEVELOPMENTS

Air Transportation - The City of Phoenix won a bid for construction of one of the Federal Aviation Administration's 60 planned automated flight service stations. The proposed station, at Ernest A. Love municipal airport, will use computerized equipment to store data on weather, winds, and other pilot information. The flight service station will employ 70 people. The new facility is expected to be operational by September 1984.

Construction - A $200 million, 83-acre commercial development at I-10 and Baseline has been approved by the Tempe City Council. Plans include a 14-story office building, 12 additional office buildings, four research and development facilities, three restaurants, a 400-room hotel and convention center, and a 300-room business hotel. Construction of the first phase is expected to begin this year.

The Trammell Crow Company plans to construct a $600 million office complex, featuring a 25-story tower, on Washington Street between Central and First avenues. Construction is scheduled to begin in the fall.

Suburban Developers plans to spend more than $10 million on three developments in the Payson-Mogollon Rim area. Plans include the remodeling of Kohl's Ranch, a 100-year-old resort which the company is buying, and new construction of cottages, motel rooms, and convention facilities; a bowling alley in Payson; and future recreational construction on 800 acres in the Clints Well area of the Mogollon Rim.

Construction has begun on Arroyo Roble Resort, a multimillion-dollar timesharing resort project in Sedona. The 72 luxury timesharing units feature a two-story design and extensive views from each unit.

Education - Arizona State University will receive a $2 million computer system for use in the school's Engineering Excellence Program as a gift from International Business Machines Corp. The equipment will be installed in ASU's $13 million engineering - research building, which is scheduled for completion this fall.

Finance - Fidelity Federal Savings of Douglas has decided to merge into Pima Savings and Loan of Tucson, both companies announced. The decision to merge resulted from Fidelity's desire to offer a greater variety of accounts and financial services, according to Ben F. Williams, Jr., Fidelity chairman. After the merger Pima Savings will have 22 offices in Arizona.

Manufacturing - Motorola, Inc. has announced tentative plans to develop a 160-acre tract in Chandler for its Government Electronics Group. Motorola plans to develop the land when it needs the space, probably beginning construction in several years and completing it in mid-1986. About 1,000 workers are expected to be employed there.

Motorola's Semiconductor Product division is currently building an automated assembly and testing plant in Chandler. It is scheduled for completion this fall. Between 300 and 400 people will work at the facility initially, increasing to 1,200 to 1,500 employees in several years.

Southwest Forest Industries, in response to increasing housing starts, has added a second shift to its Eagar and Flagstaff sawmill operations. The company's work force has increased by 220 people, 110 of which are employed at the Eagar operation and 110 of which work at the Flagstaff operation.

The Firestone Tire and Rubber Co. has selected the Gila River Indian Reservation as the site for a new manufacturing plant where rubber will be made from the desert shrub guayle. The plant will employ 25 people. Work on the plant is expected to begin in 1986.

Mining - Sierra Amarillo Mining Co. plans to reopen an open pit lead and silver mine near Wickenburg. Assays indicate that the levels of minerals required to provide a profitable mining operation are present. About 50 people will be hired. The mine is expected to be in full production by the end of October 1983.

Services - Club Med plans to build a hotel of 800 to 1,000 beds, plus resort facilities with a Western flavor, in the Tucson area. The organization is considering four properties for the resort.

Trade - Softwareland Corp., a new company based in Scottsdale, is opening three computer software retail outlets in the Phoenix metropolitan area this summer. Softwareland plans to open stores in Tucson, San Diego, Denver, and Los Angeles in the near future. The stores will emphasize software, books, and accessories, but will not sell computers.

Revco Drug, an Ohio-based company, plans to open an 8,450-square-foot store at the Casa Grande Shopping Center. An opening date has not been set. The company will maintain its downtown store in Casa Grande. There will be 79 Revco stores in Arizona when the new Casa Grande facility opens.

Payless Cashways, Inc. opened a new store at 1509 N. Arizona Ave. in Chandler in June. The Chandler store employs 74 people.

Utilities - The Salt River Project is buying Legend City and Compton Terrace properties as part of a $21.7 million, 135-acre purchase in Tempe for future expansion. The company expects the number of its electricity customers to double by the year 2,000 requiring about 2,800 additional employees and more office space to meet the extra demand. SRP does not expect to make firm plans for the land until next spring.

NEW LMI PUBLICATIONS

The Annual Planning Information report is prepared each year to assist employment and training planners in developing their programs. The publication provides timely labor market information regarding the state's population, labor force, poverty levels, occupational trends, and some specific data on target groups such as youth, Indians, and the handicapped. Many counselors, planners, and industrial developers would also find this publication of interest.

How Does Arizona Compare? is a compilation of many comparative statistics for the 50 states, highlighting Arizona. It covers a wide variety of subjects such as demographics, income, wages, and unemployment. Job seekers and industrial developers should find this publication particularly useful.

The Consumer Price Index: Changes and Uses attempts to answer many of the questions that may arise concerning the consumer price indexes. Historical tables are included in the appendix.

A revised issue of the Map of Major Employers in Central Maricopa County is now available. The names, addresses, and phone numbers of major employers in the Phoenix metropolitan area are listed with a coded map for those unfamiliar with the area. Also included is a separate listing of names and addresses of large shopping centers.

Single copies of the above publications may be obtained free by writing: Labor Market Information Publications - 733A, P.O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of printing.

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol. VII No. 9
September 1983

Unemployment Rate
Seasonally Adjusted
July*

ARIZONA	9.9%
Maricopa Co.	7.5%
Pima Co.	9.2%
UNITED STATES	9.5%

Consumer Price Index

National-June
1967 - Base Year

Wage Earner/Clerical Worker - 297.2
% Chg. Yr. Ago 2.4

All Urban - 298.8
% Chg. Yr. Ago 2.6

Phoenix-2nd Qtr.
1977 - Base Year

All Urban - 170.5
% Chg. Yr. Ago 0.9

Producer Price Index
National-June*
1967 - Base Year

All Commodities-302.5
% Chg. Yr. Ago 1.0

Finished Goods- 285.0
% Chg. Yr. Ago 1.8

* Preliminary

INDUSTRY WAGE INDEX INITIATED

Wages by industry have been compiled for Maricopa County from employer's reports to the Department of Economic Security Unemployment Insurance program. An index for each industry has been compiled from these wages, allowing comparison of the average wage paid by the industry over the years 1978 to 1982. Construction of the index is explained at the end of this article.

The average wage and the index figure for selected industries are shown below. The index is based on the average annual wage per employee. Part-time as well as full-time workers are included. Fringe benefits and tips are not included in the wages. Wages of agents, brokers, and dealers who work for commissions only are not reported to the Department of Economic Security and so are not included in these data. Commissions that are earned in addition to regular salaries are reported and are included.

The index for the average annual wage for all industries increased by 50.1 percentage points. In comparison, the Phoenix metropolitan Consumer Price Index, constructed by Arizona State University, Bureau of Business and Economic Research, increased by 53.2 percentage points during the same time period. Thus, the average wage earned in Maricopa County did not quite keep up with inflation during the five-year period.

Only 12 of the 78 industries included in the study had a wage index increase higher than the Maricopa County Consumer Price Index. The largest percentage increase, 86.4 percent, occurred in executive and legislative government. The wages themselves must be examined to put the magnitude of the increase in perspective. The average annual wage in 1978 was $9,284, nearly $2,000 below the average for all industries. Despite the rapid increase, in 1982 wages in that branch of government were only about $600 over the average for all industries.

The securities and commodities industry experienced an above-average percentage increase, 51.4 percent. The industry also had the largest average annual wage of any industry in 1978. The average wage in the industry increased the most in 1980, presumably because economic conditions were conducive to the trading of stocks and bonds. Although wage increases were slight during 1981 and 1982 the average wage remained higher than that of any other industry.

Legal services, holding and investment offices and copper mines had both above-average wages in 1978 and above-average increases from 1978 to 1982. Earnings in hotels and rooming houses grew by 55.8 percent, higher than the average for all occupations. Despite the increase, wages in the industry remained considerably below the average for all industries. The hotel industry is dominated by service occupations, which tend to pay relatively low wages. In addition, tips, which contribute a sizable proportion of income for some of these workers, are not included in the wage data.

In 66 of the 78 industries the average wage increase did not keep pace with increases in the area's Consumer Price Index. Some of these industries, including motor freight, public finance, and national security, paid above-average wages in 1978 and fell closer to the average by 1982.

A number of industries had below-average earnings in 1978 and experienced below-average wage increases from 1978 to 1982, resulting in the average wage falling further below the average in 1982. Among those industries were apparel and accessory manufacturers; eating and drinking places; personal services; and, amusement and recreation services. The average wage in eating and drinking places in 1982 was lowest of any industry. The low wages are explained by the fact that restaurants often employ part-time workers and that tips are not included in the data.

Industries were classified by the Standard Industrial Classification system at the two-digit level. The annual wage per employee was calculated for each industry. The index number is a percentage ratio of average wages in a given industry for two time periods. The time period used for the basis of comparison, which is called the base period, was 1980. For each industry, the average annual wage in 1978, 1979, 1981, and 1982 was divided by the average wage in 1980. The quotient was then multiplied by 100 to produce the index number for that year. Plans are to continue construction of the index on an annual basis.

- - - Beverly Smith

AVERAGE ANNUAL WAGES AND WAGE INDEX
SELECTED INDUSTRIES IN MARICOPA COUNTY
1978-1982

	Average Annual Wage				
Industry	1978	1979	1980	1981	1982
Chemical & Allied Products	$16,347	$13,457	$14,590	$16,564	$18,523
Electrical & Electronic Machinery	14,270	15,536	17,995	19,740	21,637
Apparel & Accessory	6,686	6,964	7,222	7,791	8,161
Eating & Drinking Places	4,460	4,837	5,255	5,621	5,978
Security & Commodity	24,124	26,179	34,266	35,093	37,964
Holding & Investment Offices	19,060	20,928	22,739	25,573	29,299
Hotels, Rooming Houses	5,958	6,788	8,062	8,701	9,280
Personal Services	7,226	7,899	8,377	8,739	8,891
Amusement & Recreation	7,137	7,634	7,667	8,013	9,238
Legal Services	18,200	19,457	21,992	24,141	28,032
Executive, Legislative & General Government	9,284	10,031	11,843	15,030	17,307
Average-All Industries	11,113	12,801	14,054	15,591	16,683

	Wage Index					Percent Change
Industry	1978	1979	1980	1981	1982	1978-82
Chemical & Allied Products	112.0	92.2	100.0	113.5	127.0	13.4%
Electrical & Electronic Machinery	79.3	86.3	100.0	109.7	120.2	51.6
Apparel & Accessory	92.6	96.4	100.0	102.4	110.8	57.4
Eating & Drinking Places	84.9	92.1	100.0	107.0	113.8	34.0
Security & Commodity	70.4	76.4	100.0	102.4	110.8	57.4
Holding & Investment Offices	83.8	92.0	100.0	112.5	128.9	53.8
Hotels, Rooming Houses	73.9	84.2	100.0	107.9	115.1	55.8
Personal Services	86.3	94.3	100.0	104.3	106.1	22.9
Amusement & Recreation	93.1	99.6	100.0	104.5	120.5	29.4
Legal Services	82.8	88.5	100.0	109.8	127.5	54.0
Executive, Legislative & General Government	78.4	84.7	100.0	126.9	146.1	86.4
Average-All Industries	79.1	91.1	100.0	110.9	118.7	50.1

OCCUPATIONAL CHARACTERISTICS OF WOMEN AND MINORITIES

While Arizona women continue to dominate administrative support (clerical) and service occupations, they are also driving more buses and programming more computers than ever before. Some interesting statistics can be drawn from recently released census estimates that break down the occupational characteristics of the Arizona labor force.

Since the 1970 census, there has been enough of an increase of women in certain nontraditional jobs to justify disclosure of estimates previously too small to publicly release. For example, the occupations in the table below did not show a breakdown for women in 1970 because the amount was less than one percent of the total work force.

	Women as a Percentage of Total	
Occupation	1980	1970
Baker	49.6%	*
Bus Driver	40.1	*
Butcher/Meatcutter	8.4	*
Civil Engineer	3.7	*
Construction Laborer	4.0	*
Mechanical Engineer	2.2	*
Welder/Flamecutter	5.2	*

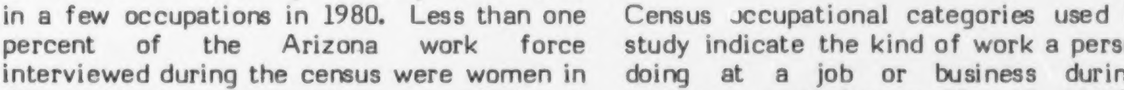
*Less than one percent

But women were still practically nonexistent in a few occupations in 1980. Less than one percent of the Arizona work force interviewed during the census were women in the following occupations: agricultural products inspector; explosive worker; farm equipment mechanic; firefighting/fire prevention supervisor; heavy equipment mechanic; paving, surfacing, and tampering equipment operator; petroleum engineer; podiatrist; sales engineer; theology teacher; and water & sewage treatment plant operator.

Since 82.4 percent of Arizona's population in 1980 was white, it is not surprising categories are dominated by whites. But minorities comprise over a third of the labor force in the following occupations: legislator; public administration executive; business & promotion agent; foreign language teacher; social worker, typist, teacher's aide; housekeeper/maid/janitor; welfare service aide; nonprivate child care worker; farm worker; groundskeeper; forestry worker; construction trade helper, laborer, and apprentice; brickmason/stonemason; concrete/terrazzo finisher; plasterer; dressmaker/tailor & sewing machine operator; assembler; and mining machine operator.

Census occupational categories used in this study indicate the kind of work a person was doing at a job or business during the reference week (March 23 - 29, 1980) or, if not at work, at the most recent job or business if employed since 1975. Persons with more than one job were instructed to describe the one at which the person worked the most hours during the reference week. The occupation was not determined for persons in Armed Forces.

- - - Margaret Coulter



OCCUPATIONS BY SEX AND RACE/ETHNICITY, ARIZONA 1980

		Percent of Total				
	Total	Female	White	Black	Native American	Hispanic, all Races
Total, All Occupations	1,179,721	41.7%	78.7%	2.4%	3.5%	14.4%
Executive, Admin., Managerial	132,515	32.6	88.3	1.4	1.8	7.4
Accountants/Auditors	11,889	45.8	89.5	1.0	1.9	5.7
Personnel/Labor Relations Managers	2,314	33.9	84.8	3.4	2.2	8.6
Professional Specialty Occupations	149,753	47.2	87.2	1.9	2.9	6.6
Electrical/Electronic Engineers	5,951	4.9	91.8	0.9	0.4	3.8
Elementary School Teachers	26,645	73.5	84.0	2.5	5.0	7.6
Lawyers	5,065	14.0	94.2	0.8	0.9	4.0
Physicians	5,428	9.4	90.1	0.8	0.4	5.0
Registered Nurses	15,079	97.1	90.7	1.8	1.9	4.4
Technicians and Related Support	38,754	38.7	84.4	2.6	2.4	9.2
Airplane Pilot/Navigators	1,329	1.1	95.1	0.5	0.5	2.9
Computer Programmers	3,754	27.5	91.5	2.9	0.1	3.6
Drafting Occupations	3,999	18.8	82.6	1.8	1.8	11.8
Sales Occupations	132,542	48.8	88.1	1.2	1.1	8.6
Cashiers	24,234	84.0	78.5	2.3	2.6	15.0
Sales Workers, Apparel	4,312	84.8	83.2	1.2	1.2	13.8
Real Estate Sales	16,946	42.3	96.1	0.3	0.2	3.1
Admin. Support, Including Clerical	188,559	78.2	81.3	2.8	3.1	12.2
Bank Tellers	5,584	90.3	77.8	3.7	1.9	16.1
Computer Operators	4,584	64.4	84.1	3.7	1.6	9.3
Secretaries	43,005	98.9	85.4	1.2	2.8	10.0
Service Occupations	163,145	55.4	72.2	3.8	6.1	16.7
Police/Detective (Public Service)	5,978	7.9	80.3	2.0	6.2	10.7
Waiter/Waitress	20,058	87.3	85.8	1.6	1.9	8.8
Farming, Forestry, Fishing	33,103	14.1	51.4	2.1	5.7	39.8
Groundskeepers/Gardeners	9,086	7.0	60.1	2.5	4.5	32.0
Precision Prod., Craft & Repair	168,479	8.7	77.3	1.9	3.2	17.0
Automobile Mechanics	15,088	1.1	81.2	0.2	0.1	14.1
Carpenters	17,787	1.8	78.5	1.4	6.7	13.3
Machinists	4,853	5.4	83.8	2.0	1.7	11.5
Machine Oper., Assemblers, Inspectors	68,354	41.5	64.2	3.7	4.1	26.5
Assemblers	14,569	65.7	61.3	6.0	2.1	28.8
Textile Sewing Machine Operators	3,529	96.3	44.8	1.6	3.3	42.6
Transportation & Material Moving	49,375	8.0	73.0	3.1	4.6	19.0
Bus Drivers	3,700	40.1	70.2	4.8	10.6	14.4
Truck Drivers, heavy	20,936	3.5	74.2	3.7	2.9	18.9
Handlers, Equip. Cleaners, Helpers, Laborers	55,142	14.8	61.0	3.2	7.2	27.8

Note: Breakdowns by white, black, and Native American do not include Hispanics.
Source: U.S. Department of Labor, Employment and Training Administration, 1980 Census, run on May 14, 1983 by Lawrence Berkeley Laboratory. Data is from Census Bureau sample estimates.

Growth of apprehensions of illegal Mexican immigrants, together with high U.S. unemployment, has led to public concern in the United States about the effect of the influx of Mexican workers on wages, employment, and public resources. Better understanding of the forces behind illegal immigration is essential to deal effectively with the problem.

A recent study by the Federal Reserve Bank of Dallas sheds more light on the economic forces that draw Mexicans illegally into the United States. The study, by Alberto E. Davila, an economist, examines economic forces that "push" undocumented Mexicans into the United States and "pull" forces that draw Mexicans into this country.

The study elaborates on previous analysis by using quarterly instead of annual data. The quarterly data reveals the importance of agricultural labor demand in the United States as a force "pulling" illegal immigrants into this country.

Separate analysis of data on apprehended males and females was a second expansion in the study. This separate analysis is relevant because of the growth of female apprehensions. In 1973, females accounted for 10 percent of total apprehensions, but their share increased to 16 percent by 1982.

The analysis used monthly data from the U.S. Immigration and Naturalization Service (INS), on the number of apprehended aliens. Data on actual gross or net Mexican immigration is considered a useful proxy for net illegal immigration for this study because its primary purpose is to identify changes in migration flows, not to measure the magnitude of those flows.

The data show that variance in apprehensions is highly seasonal and correlates with demand for agricultural labor in the United States. Apprehensions usually peaked between March and July and hit their lowest point in December (as shown in the chart at the bottom of page 8), even though the authorized border patrol force remained virtually unchanged. The number of U.S. wage and salary farm workers follows this same pattern.

The strength of the relationship between economic variables and illegal Mexican immigration apprehensions were estimated by statistical regression of selected "push" and "pull" variables. U.S. agricultural labor demand was studied as a "pull" variable because the majority of Mexicans apprehended while working were agricultural workers. Nonagricultural demand was studied as a second variable. In 1982 about 44 percent of the males and 71 percent of the females apprehended while working were employed in nonagricultural occupations. Employment in construction and manufacturing industries in Texas, New Mexico, Arizona, and California was added to form a proxy for nonagricultural labor demand.

The "push" variable measures the correspondence between illegal immigration and the demand for labor in Mexico. A ratio of employed individuals to the relevant population was contructed using data from the three largest metropolitan areas in Mexico: Mexico City, Guadalajara, and Monterrey. Data covering the entire country were not available, but these areas are believed to reflect the health of the Mexican economy.

The regression results show both push and pull forces to be determinates of illegal Mexican immigration. Agricultural employment was the only statistically significant pull variable, supporting the view that some migration is seasonal. U.S. nonagricultural demand was not a significant pull force for males or females, despite the fact that apprehended females were concentrated in nonagricultural occupations.

The research further suggests that the push of unfavorable employment opportunities in Mexico outweighs the pull force of U.S. agricultural demand. Simply stated, illegal immigration increases despite record-high unemployment in the United States. The push variable was larger in absolute value than either of the pull variables of U.S. labor demand for both sexes. The results indicate that males are more responsive to the push of unfavorable Mexican employment conditions than are females.

The indication of the importance of the effect of poor employment opportunities in Mexico on illegal immigration is consistent with the findings of other studies. The surge in apprehensions of Mexicans after the 1976 peso devaluation is also in harmony with this view. It is possible, however, that the Mexican employment-population ratio is a better measure than are the measures for the pull variables, reducing confidence about the relative magnitude of push and pull factors.

Congress is currently considering legislation geared to reduce illegal immigration. Recommendations from the Reagan Administration and the Select Commission on Immigration and Refugee Policy were combined into the Simpson - Mazzoli bill. The bill proposes a mixture of programs involving amnesty, a worker identification system, revision of the temporary - worker program, and employer sanctions.

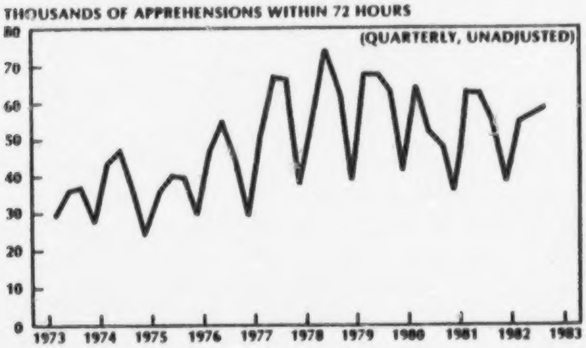
Of greatest interest has been the bill's proposal to stem illegal immigration by employer sanctions. The bill provides for fines ranging up to $2,000 per alien for employers who knowingly hire illegal aliens.

The proposed employer sanctions should reduce demand for illegal Mexican immigrant workers. This study shows that illegal Mexican immigration does respond to changes in demand on the U.S. side of the border. Thus, if passed as proposed, the legislation is likely to reduce illegal Mexican immigration, but not without social and political drawbacks.

The magnitude of the effect of poor employment opportunties in Mexico "pushing" immigrants illegally into the United States could severely increase political strain between Mexico and the United States, especially if the Mexican economy continues to deteriorate. The result of this study, and others, indicates that progress is being made in dealing with illegal immigration, but that a healthy Mexican economy is essential for a harmonious and effective immigration policy.

Source: This article is summerized from an article published in the Economic Review published by the Federal Reserve Bank of Dallas, May, 1983.

Total Apprehensions of Undocumented Mexican Workers in the United States



SOURCE OF PRIMARY DATA: U.S. Immigration and Naturalization Service

UNDOCUMENTED MEXICANS APPREHENDED WHILE WORKING IN THE UNITED STATES

	Type of employment					
	Agricultural		Industrial and other		Totals	
Year	Males	Females	Males	Females	Males	Females
1973 . . .	103,433	3,839	71,138	12,808	174,571	16,647
1974 . . .	110,529	5,600	71,963	11,365	182,492	16,965
1975 . . .	114,536	6,323	68,767	16,154	183,303	22,477
1976 . . .	114,882	7,107	66,867	17,670	181,749	24,777
1977 . . .	109,691	7,257	86,023	23,620	195,714	30,877
1978 . . .	101,935	5,958	78,917	15,609	180,852	21,567
1979 . . .	108,214	5,372	82,463	11,111	190,677	16,483
1980[1] . . .	54,755	2,920	49,593	7,673	104,348	10,593
1981 . . .	95,585	5,625	65,192	9,514	160,777	15,139
1982[2] . . .	90,954	5,982	71,644	14,863	162,598	20,845

1 Decreases in apprehensions reflect termination of INS worksite inspections.
2 Figures are annual rates based on January-June data.
SOURCE OF PRIMARY DATA: U.S. Immigration and Naturalization Service

Arizona Labor Force and Employment

July 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Jul.* 1983	Jun. 1983	Jul. 1982	Jun. to Jul.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1324.8	1328.1	1317.5	-3.3	+7.3
Total Unemployment	136.9	136.8	149.5	+0.1	-12.6
Rate	10.3	10.3	11.3	---	---
Rate (Sea. Adj.)**	9.9	9.9	10.8	---	---
Total Employment	1187.9	1191.3	1168.0	-3.4	+19.9

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Jul.* 1983	Jun. 1983	Jul. 1982	Jun. to Jul.	1982 to 1983
TOTAL WAGE AND SALARY	1019.0	1027.1	1002.8	-8.1	+16.2
Manufacturing	153.3	152.2	152.8	+1.1	+0.5
Durable Goods	119.5	118.4	119.2	+1.1	+0.3
Stone, Clay and Glass	5.8	5.7	5.1	+0.1	+0.7
Primary and Fabricated Metals	13.9	14.3	14.8	-0.4	-0.9
Primary Metals	6.4	6.5	7.1	-0.1	-0.7
Fabricated Metals	7.5	7.8	7.7	-0.3	-0.2
Machinery	61.0	60.3	62.1	+0.7	-1.1
Other Durable Goods	38.8	38.1	37.2	+0.7	+1.6
Aircraft and Missiles	17.5	17.3	17.4	+0.2	+0.1
Lumber and Wood Products (Except Furniture)	6.0	5.8	5.1	+0.2	+0.9
All Other Durable Goods	15.3	15.0	14.7	+0.3	+0.6
Nondurable Goods	33.8	33.8	33.6	+0.0	+0.2
Food and Kindred Products	8.0	8.1	8.6	-0.1	-0.6
Apparel	4.5	4.5	4.8	+0.0	-0.3
Printing and Publishing	11.9	11.8	11.3	+0.1	+0.6
All Other Nondurable Goods	9.4	9.4	8.9	+0.0	+0.5
Mining and Quarrying	14.8	15.8	17.7	-1.0	-2.9
Copper Mining	11.8	12.8	14.6	-1.0	-2.8
Other Mining and Quarrying	3.0	3.0	3.1	+0.0	-0.1
Construction	74.7	73.4	63.6	+1.3	+11.1
Trans., Communications, and Public Utilities	55.9	55.7	56.6	+0.2	-0.7
Transportation	23.5	23.5	23.4	+0.0	+0.1
Communications and Public Utilities	32.4	32.2	33.2	+0.2	-0.8
Trade	251.1	253.9	249.4	-2.8	+1.7
Wholesale Trade	50.5	50.9	49.8	-0.4	+0.7
Retail Trade	200.6	203.0	199.6	-2.4	+1.0
General Merchandise and Apparel	36.3	36.5	37.1	-0.2	-0.8
Food Stores	31.7	32.0	32.1	-0.3	-0.4
Automotive and Service Stations	24.4	24.4	24.6	+0.0	-0.2
Eating and Drinking Places	68.1	69.6	66.5	-1.5	+1.6
Other Retail Trade	40.1	40.5	39.3	-0.4	+0.8
Finance, Insurance, and Real Estate	63.0	62.7	61.9	+0.3	+1.1
Services and Miscellaneous	225.3	225.7	221.3	-0.4	+4.0
Hotels and Other Lodging Places	22.2	23.2	22.1	-1.0	+0.1
Business Services	42.3	42.3	40.7	+0.0	+1.6
Health Services	62.2	62.5	61.0	-0.3	+1.2
Other Services	98.6	97.7	97.5	+0.9	+1.1
Government	180.9	187.7	179.5	-6.8	+1.4
Federal	38.6	38.5	38.1	+0.1	+0.5
State and Local	142.3	149.2	141.4	-6.9	+0.9
School	73.4	80.7	71.3	-7.3	+2.1

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

July 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Jul.* 1983	Jun. 1983	Jul. 1982	Jun. to Jul.	1982 to 1983	Jul.* 1983	Jun. 1983	Jul. 1982	Jun. to Jul.	1982 to 1983
806.0	808.1	796.7	-2.1	+9.3	246.5	249.8	240.1	-3.3	+6.4
62.9	64.4	68.3	-1.5	-5.4	23.4	24.5	25.5	-1.1	-2.1
7.8	8.0	8.6	---	---	9.5	9.8	10.6	---	---
7.5	7.6	8.2	---	---	9.2	9.4	10.2	---	---
743.1	743.7	728.4	-0.6	+14.7	223.1	225.3	214.6	-2.2	+8.5

BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

650.6	654.1	637.8	-3.5	+12.8	189.7	193.1	182.8	-3.4	+6.9
110.8	109.3	111.1	+1.5	-0.3	26.3	26.6	25.7	-0.3	+0.6
87.6	86.4	88.2	+1.2	-0.6	21.4	21.7	21.0	-0.3	+0.4
3.7	3.5	3.0	+0.2	+0.7					
9.1	9.1	9.9	+0.0	-0.8					
48.5	47.9	49.8	+0.6	-1.3					
26.3	25.9	25.5	+0.4	+0.8					
23.2	22.9	22.9	+0.3	+0.3	4.9	4.9	4.7	+0.0	+0.2
5.5	5.5	6.1	+0.0	-0.6					
2.2	2.1	2.4	+0.1	-0.2					
8.7	8.6	8.3	+0.1	+0.4					
6.8	6.7	6.1	+0.1	+0.7					
0.6	0.6	0.4	+0.0	+0.2	3.3	3.7	4.2	-0.4	-0.9
50.4	49.7	42.3	+0.7	+8.1	15.0	14.4	12.1	+0.6	+2.9
35.2	35.2	35.6	+0.0	-0.4	8.8	8.7	9.1	+0.1	-0.3
15.1	15.1	14.9	+0.0	+0.2	3.9	3.9	4.0	+0.0	-0.1
20.1	20.1	20.7	+0.0	-0.6	4.9	4.8	5.1	+0.1	-0.2
166.8	169.2	165.6	-2.4	+1.2	42.5	43.1	42.8	-0.6	-0.3
40.5	40.8	40.1	-0.3	+0.4	6.1	6.0	6.0	+0.1	+0.1
126.3	128.4	125.5	-2.1	+0.8	36.4	37.1	36.8	-0.7	-0.4
22.8	23.0	23.5	-0.2	-0.7	6.6	6.8	7.0	-0.2	-0.4
20.2	20.3	20.4	-0.1	-0.2	5.1	5.2	5.2	-0.1	-0.1
14.8	14.8	14.9	+0.0	-0.1	4.4	4.4	4.4	+0.0	+0.0
41.3	42.8	40.1	-1.5	+1.2	12.8	13.1	13.0	-0.3	-0.2
27.2	27.5	26.6	-0.3	+0.6	7.5	7.6	7.2	-0.1	+0.3
48.7	48.4	48.3	+0.3	+0.4	9.2	9.1	8.5	+0.1	+0.7
148.3	149.4	144.8	-1.1	+3.5	44.2	44.4	42.6	-0.2	+1.6
12.1	13.2	12.1	-1.1	+0.0	3.0	3.2	3.0	-0.2	+0.0
34.5	34.5	33.1	+0.0	+1.4	6.1	6.2	6.0	-0.1	+0.1
41.3	41.6	40.2	-0.3	+1.1	13.6	13.5	13.5	+0.1	+0.1
60.4	60.1	59.4	+0.3	+1.0	21.5	21.5	20.1	+0.0	+1.4
89.8	92.3	89.7	-2.5	+0.1	40.4	43.1	37.8	-2.7	+2.6

NONMETROPOLITAN COUNTIES LABOR FORCE & EMPLOYMENT

July 1983 (preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*	16,050	29,100	36,375	14,575	8,425	3,125	4,800
Total Unemployment	4,100	3,300	4,800	3,375	1,900	175	850
Rate	25.5%	11.3%	13.2%	23.2%	22.6%	5.6%	17.7%
Rate (Seas. Adj.)**	23.8%	11.0%	12.5%	23.3%	21.2%	6.1%	INA
Total Employment	11,950	25,800	31,575	11,200	6,525	2,950	3,950

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY	12,575	21,175	30,125	9,175	4,075	2,350	2,350
Manufacturing	500	1,525	2,400	1,150	100	350	100
Mining and Quarrying	25	400	50	1,650	75	1,075	0
Construction	1,450	750	1,100	350	175	25	100
Trans., Comm., & Pub. Util.	1,700	1,450	2,300	325	175	50	50
Trade	1,025	4,150	7,300	1,750	1,325	300	900
Fin., Insur., & Real Estate	125	550	775	225	125	25	125
Services and Miscellaneous	3,050	2,700	7,625	1,600	625	75	625
Government	4,700	9,650	8,575	2,175	1,475	450	450

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*	22,650	26,325	32,050	9,275	32,025	37,575
Total Unemployment	3,425	6,025	6,450	2,775	3,025	10,425
Rate	15.1%	22.9%	20.1%	29.9%	9.4%	27.7%
Rate (Seas. Adj.)**	15.0%	22.2%	19.2%	27.4%	10.0%	INA
Total Employment	19,225	20,300	25,600	6,500	29,000	27,150

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY	14,825	16,075	22,000	6,525	17,450	20,025
Manufacturing	2,125	1,575	2,300	750	1,925	1,450
Mining and Quarrying	275	1,100	5,125	25	1,075	75
Construction	1,000	775	550	175	1,125	1,775
Trans., Comm., & Pub. Util.	950	1,650	925	525	825	975
Trade	4,425	3,425	3,600	2,650	4,050	6,325
Fin., Insur., & Real Estate	625	300	575	250	750	675
Services and Miscellaneous	2,625	3,650	2,025	875	3,525	3,750
Government	2,800	3,600	6,900	1,275	3,575	5,000

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS
June 1983 (Preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,325,712	1,118,399	137,313	10.4%
Apache	15,756	11,826	3,930	24.9
Cochise	28,919	25,614	3,305	11.4
Coconino	35,334	30,593	4,741	13.4
Gila	15,149	11,367	3,782	25.0
Graham	8,840	6,644	2,196	24.8
Greenlee	3,261	3,043	218	6.7
La Paz	5,088	4,178	910	17.9
Maricopa	806,179	742,431	63,748	7.9
Mohave	22,164	18,655	3,509	15.8
Navajo	24,907	19,515	5,392	21.6
Pima	248,407	224,342	24,065	9.7
Pinal	32,372	25,732	6,640	20.5
Santa Cruz	8,985	6,554	2,431	27.1
Yavapai	32,068	28,848	3,220	10.0
Yuma	38,283	29,057	9,226	24.1

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	JULY* 1983	JUNE 1983	JULY 1982	JULY* 1983	JUNE 1983	JULY 1982	JULY* 1983	JUNE 1983	JULY 1982
****FOR THE STATE OF ARIZONA****									
Manufacturing	372.49	374.14	344.82	40.4	40.8	38.7	9.22	9.17	8.91
Aircraft & Missiles	466.46	465.50	416.46	41.5	41.6	39.4	11.24	11.19	10.57
Food & Kindred Products	355.72	340.96	310.27	40.7	39.6	40.4	8.74	8.61	7.68
Primary Metals	410.74	464.36	448.35	34.2	38.6	37.9	12.01	12.03	11.83
Machinery	360.64	355.56	306.14	41.5	41.2	38.9	8.69	8.63	7.87
Copper Mining	513.13	520.74	507.86	37.4	39.6	38.3	13.72	13.15	13.26
Construction	418.30	419.76	446.54	35.6	36.0	35.3	11.75	11.66	12.65
Utilities	500.76	500.76	443.39	42.8	42.8	41.4	11.70	11.70	10.71
Retail Trade**	214.33	210.52	209.84	33.7	33.9	33.9	6.36	6.21	6.19
Wholesale Trade	349.00	338.40	320.82	40.3	40.0	38.7	8.66	8.46	8.29

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

THE ARIZONA'S LABOR FORCE IN JULY 1983

Following June's drop in unemployment of one-half of a percentage point statewide, the largest since July 1973, the rate stabilized in July. In general, improving economic conditions in the Phoenix and Tucson metropolitan areas were offset by an increase in unemployment in the balance of the state. Manufacturing and construction continued to expand employment while seasonal losses in government and strike-related declines in mining countered the improvement.

Flooding along the Colorado River has definitely disrupted business activity for many establishments in Mohave, La Paz, and Yuma counties. In particular, many restaurants, motels, and retail trade businesses saw large sales drops as visitors avoided the area. But that loss of business was not translated into employment losses in July. In fact, trade and services employment in these three counties was nearly unchanged. In the future, employment will likely expand as repair work begins.

In the manufacturing and construction industries, business continued to expand and employment reacted with an increase of 2,400 jobs. Residential building activity in the state's metropolitan areas remained quite strong. But it is doubtful that this level of activity can be sustained until the end of the year. The recent rise in interest rates will reduce the number of people who qualify for mortgages and will also reduce confidence in the economy. Meanwhile, high-technology manufacturers in Maricopa County helped manufacturing to add 1,100 new workers. Some minor weakness was noted in construction-related businesses, but those losses were not unexpected.

The remainder of Arizona's economy showed little change. Summer tourism activity is running ahead of last year, but is only about a normal year in terms of employment. The loss of 1,000 jobs in mining is due to the strike against Phelps Dodge, but none of these people are counted as unemployed. And government employment remained little changed from a year ago as seasonal layoffs and tight budgets kept employment from growing.

A year ago, unemployment reached a record high of 149,500 and has been falling since that time. While the number of people unemployed has fallen 12,600, employment is up 19,900. By historical standards, the recovery continues to progress slowly, with most of the improvement in the Phoenix and Tucson areas. We appear to be entering a critical period where continued employment progress will depend on improvements in the national and international economies. The recovery is yet too fragile for it to be sustained in the face of weakened consumer confidence and high interest rates.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - JUNE

	June 1983	May 1983	June 1982	% Change From 1 Year Ago
Arizona Claimants Served**	61,051	62,346	51,353	+18.9%
Arizona Weeks Unemployed***	INA	10.8	9.4	+ -
Arizona Benefits Paid**	$19,150,037	$20,122,352	$16,181,390	+18.3%
Arizona Trust Fund Balance	$175,182,586	$186,352,152	$268,119,919	-34.7%

*Estimated **All Programs ***UI Only

ON THE JOB: TENURE

How long have you been working for the same employer? If by some odd chance the answer is 3.2 years, join the ranks because that's the median job tenure of American workers.

Recently a report entitled "Job Tenure of Workers in January 1981" was released by the Bureau of Labor Statistics, U.S. Department of Labor. The basic survey is conducted only every 3 to 5 years. Therefore, the statistics that were the base of this report were derived from the January 1981 Current Population Survey. Two years later, a picture can be drawn.

Nearly 30 percent of all workers in January 1981 had been employed in their job for less than one year. At the same time, however, nearly one-fourth had been at the same job more than 10 years.

Not surprisingly, young workers have the lowest levels of tenure. About 50 percent of all teenagers interviewed during the survey had been on their job for 6 months or less. For all demographic groups shown (except men over 65 years old) successively higher age intervals show greater levels of job tenure. The highest medians occur for men age 55 to 64 exceeding 14 years.

Men have higher overall median levels of tenure than women, 4 years compared with 2.5. Part of this difference is because of the greater proportion of working women who are under age 25. Another factor is the greater likelihood of women leaving jobs to care for young children.

Overall, black workers had more years of job tenure than whites did in 1981. White and black men had identical median job tenure of 4 years, but black women had worked longer than white women.

Because single persons tend to be young, the typical single man or woman has accumulated a limited number of years on their current job. The median level of job tenure for both single men and women is 1.2 years, compared to 3.1 for wives and 6 years for husbands.

By industry, self-employed men in agriculture had the largest spells of job tenure. Male wage-and-salary workers in public administration ranked highest, at 6.8 years. Women registered the highest wage-and-salary tenure in the transportation and public utilities industries with 3.5 years. The lowest was in wholesale and retail trade, 1.5 years.

For the purpose of this study, job tenure is a measure of the length of time an employee has worked continuously for the same employer, although not necessarily in the same occupation. Continuous employment is broken only by interruptions other than vacations, temporary illness, strikes, layoffs of less than 30 days, or other short-term absences. A person terminates his or her tenure by quitting, being laid off for 30 days or more, entering the Armed Forces, or transferring to a job in a different company.

- - - Margaret Coulter

NEW DEVELOPMENTS

Construction - A 95,000-square-foot four-story office building is under construction at 4949 N. 7th Street in Phoenix. The building is phase one of Valley Commerce Center. The center will house a country French restaurant, a full-service bank, and a health club. The design is a classical European style. Construction of phase two is expected to begin next spring.

Abbott Laboratories is building a 475,000-square-foot manufacturing plant in Casa Grande for a line of nutritional and baby food products. Scheduled to open in 1986, the new facility will produce liquid forms of Similac and Isomil infant formulas, and the Ensure line of oral medical nutritional products. Selection of the Casa Grande plant site came after a search of eight states for a western states plant and distribution site.

In addition to manufacturing the food products, the plant will also manufacture its own cans, using state-of-the-art solderless technology. The product processing facility will have extensive quality assurance operations including microbiology, analytical chemistry, and incoming materials testing.

Worldwide, Abbott Laboratories employs some 32,000 people. Reported 1982 net sales and earnings were $2.602 billion and $289.1 million, respectively, with earnings per share of $2.37. About 150 will initially be employed in Casa Grande.

Manufacturing - SGS Semiconductor Corporation recently completed its new American headquarters at Bell Road and 7th Street in Phoenix. SGS headquarters were moved from Waltham, Massachusetts. Phoenix won the site selection contest over Austin, Texas; Denver, Colorado; and, the Silicon Valley in California.

Phase two of SGS's Phoenix plant calls for construction of a 100,000-square-foot manufacturing facility to employ up to 800 workers. Ground-breaking for the new plant will occur by the end of 1983. The company has been in the process of recruiting EDP, warehousing, customer service, and finance department personnel.

SGS is a world leader in monolithic linear integrated circuits. Among current projects, the firm is designing a state-of-the-art 256 K ROM memory chip that will be smaller than 250 square mils.

A Creamette plant was completed in Tolleson last month and began manufacturing pasta on September 1. It employs 40.

ConAgra is buying Armour Food Co. from Greyhound Corp. Greyhound said it is selling Armour because of high union wages. ConAgra said the decision to keep Armour employees will depend on negotiations of terms and conditions of employment at each plant.

GenRad Inc., Service Products Division, electronic systems manufacturer plans to build a $5 million divisional headquarters and manufacturing facility on a 9.6 acre site in the Phoenix area at Greenway Road and I-17. About 350 people will work at the facility, which is scheduled for completion in May 1984.

Tourism - Arizona State University will offer a "travel and tourism studies" program within the department of leisure studies this fall. The program is supported in part by the Arizona Office of Tourism. Its purpose will be to: conduct research for the state tourism industry; focus on development of bachelor's and master's degree programs; and involve community service, such as providing education programs to Chambers of Commerce and nonprofit agencies. The Arizona Office of Tourism will pay for the research portion of the program.

Victor L. Heller, former deputy director of the tourism office, was named director of travel and tourism studies. Heller and Nick Henry, ASU's dean of public programs, said tourism generates $4.7 billion dollars annually for the state, but Arizona has one of the smallest tourism budgets in the country. A better perception of the industry by state residents would be reflected in a higher budget for the Office of Tourism, Nick Henry believes.

Border Help - Mexican President Miguel de la Madrid announced approval of more than $10 million in immediate help for border area businesses and labor leaders. Help was to come in the form of credit and accelerated development projects.

Job Training - About 600 residents of Guadalupe, where the unemployment rate was 24 percent in June, will receive instruction in fields such as job search, job awareness and responsibility, computer literacy, clerical skills, and hotel and motel management. The Arizona Department of Education approved the program, which will receive state funding.

Layoffs - Asarco Inc. planned to lay off about 85 workers at the Hayden smelter during the first three weeks in August in order to install pollution-control equipment.

Great Western Bank laid off some of its 700-person work force during the latter part of July. GWB's President David Zacharias said the layoffs were enabled by automation and would help in achieving better efficiency and work flow. The exact number laied off was not disclosed.

Plant Closing - Reynolds Metals Company will close its aluminum extrusion and fabricating plant at 3501 W. Van Buren, Phoenix, on October 21, 1983. About 310 will lose their jobs, but 80 percent of the job losers are eligible for early retirement. As recently as two years ago, the Reynolds plant work force totaled 1,150. Company officials cited high production costs and a slump in the aluminum market as reasons for the closing. Production costs were high because the plant was old. It was built during World War II by the government, leased to Reynolds in 1946, and sold to it in 1949.

Flagstaff's Ponderosa Paper Products Company closed in July putting 110 out of work. The closing resulted from increased costs required to mask odors from holding ponds. The plant may reopen later if pending litigation can be suitably resolved.

Strikes - Anamax Twin Buttes miners went on strike after their contract expired at 12:00 a.m. on August 1. The mine south of Tucson was operating with a skeleton crew according to manager Gerald R. Wyman. He estimated the strike would involve about 360 workers, while Teamsters Union Local 310 president Pete Cenquemani estimated the striking membership to include 700.

Mountain Bell workers who were members of Communications Workers of America Local 8526 voted to authorize a strike if a contract could not be negotiated by August 6. The strike was expected to affect 1,200 workers in Tucson and two hundred others in Nogales, Sierra Vista, Willcox, Casa Grande, and Eloy.

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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VII No. 10
October 1983

UNEMPLOYMENT RATE
Seasonally Adjusted
August*

ARIZONA	9.2%
Maricopa Co.	7.0%
Pima Co.	8.4%
UNITED STATES	9.5%

CONSUMER PRICE INDEX

National-July
1967 - Base Year

Wage Earner/Clerical Worker -	298.2
% Chg. Yr. Ago	2.2
All Urban -	299.3
% Chg. Yr. Ago	2.4

Phoenix-2nd Qtr.
1977 - Base Year

All Urban -	170.5
% Chg. Yr. Ago	0.9

PRODUCER PRICE INDEX
National-July*
1967 - Base Year

All Commodities-	303.2
% Chg. Yr. Ago	0.6
Finished Goods-	285.7
% Chg. Yr. Ago	1.2

* Preliminary

LMI YEAR END FORECASTS AT MIDYEAR: "GOOD ENOUGH TO LET THEM STAND"

With over half of 1983 behind us, it seems appropriate to look back and check the accuracy of our forecast of the Arizona economy. It was expected that 1983 would see the beginning of a recovery with the first half registering modest increases as the recovery gained momentum. The question then is how accurately did we predict the behavior of the economy in the first half of 1983? The forecast is presented with annual averages which makes it difficult to evaluate in the middle of the year. But our model also provides quarterly data which will be used to judge the mid-year performance of the forecast.

Manufacturing was supposed to be one of the shining lights in 1983. And although it has been one of the leaders, the lights have not shone as brightly as expected. The one area that presented the most promise was electronics components. It was expected that expanding demand in both residential and commercial products would provide the impetus for this sector of manufacturing. But consumer interest for certain electronic products has declined and this has been reflected in slower than expected growth. The forecast was too optimistic by 3.6 percent, or over two thousand jobs too high.

This was offset by underestimating the impact of the resurgent housing market. The manufacturing industries which provide construction material have been adding jobs at a faster pace than predicted. These sectors have added seven hundred more jobs than we predicted at the beginning of the year. A concern for these sectors is their dependence upon the construction industry and the resulting sensitivity to interest rates. This could continue to make this part of manufacturing volatile. After all the pluses and minuses in manufacturing are added up, the forecast was off by +1.0 percent in the second quarter. This represents an estimate that was overly optimistic by approximately fifteen hundred jobs. Thus, over the first six months of 1983, manufacturing has been growing at an even more modest rate than predicted.

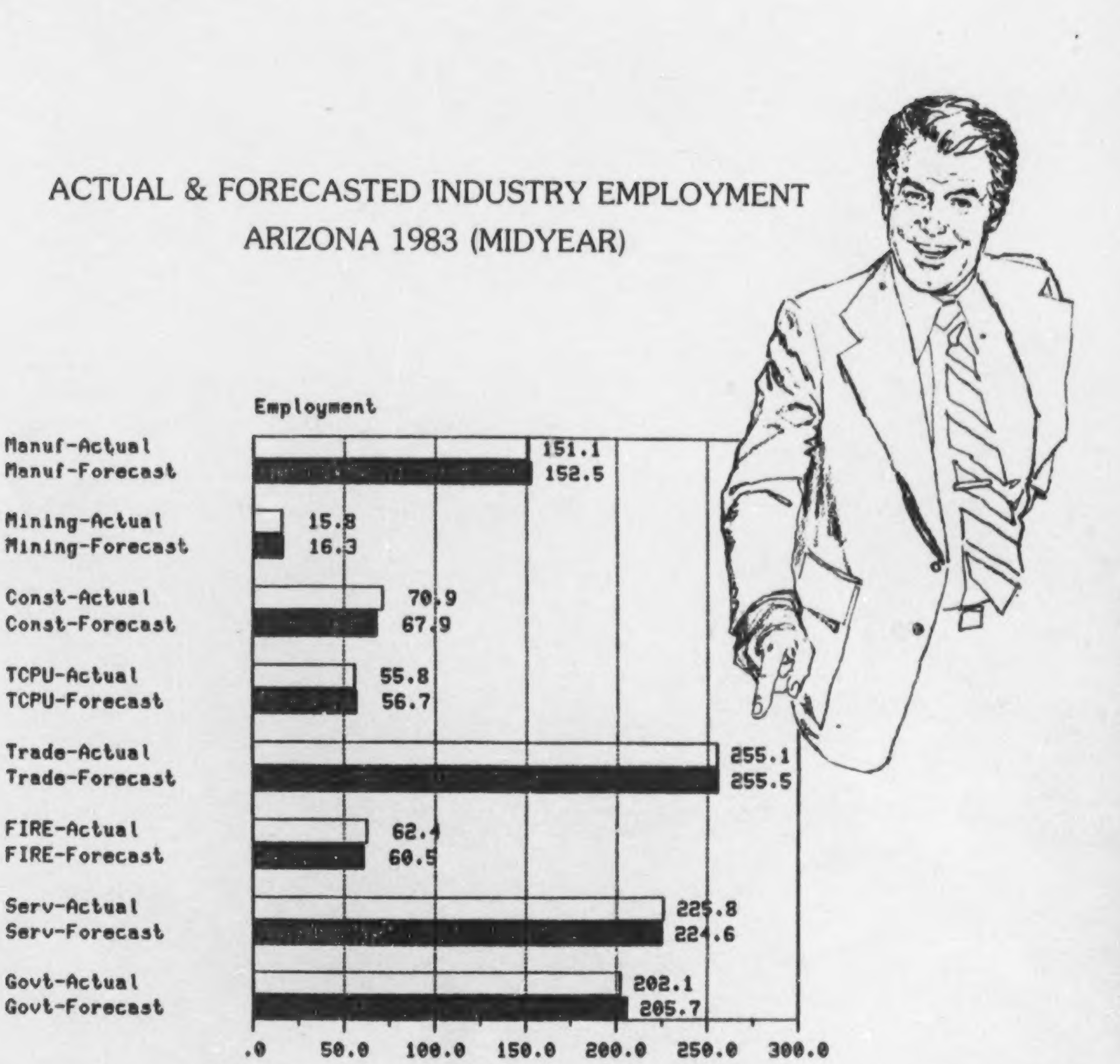
The forecast for mining in Arizona was not very optimistic either for the industry or the counties where it is the major source of jobs. But at mid-year, the forecast still proved too optimistic. The estimate was over five hundred jobs too high which is 3.4 percent of the number of jobs. The current trend indicates that by the end of the year our forecast may be closer but certainly not too low. This does not look well for the nonmetropolitan counties which are dependent upon copper mining. After more than a year, some of the residents of these counties are facing extremely difficult decisions about their futures. And these decisions are going to impact upon the viability of the economics of several of the smaller counties. This will make any recovery in these counties both very slow and very painful.

For construction employment, we forecasted a slow growth throughout 1983. After six months, it appears that we underestimated the strength of the recovery for the construction trades. The most dramatic separation of estimated and actual employment was in the special trades, which we underestimated by over ten percent. The rapid increase in construction of residential housing resulted in a much faster growth for the special trades than was anticipated. Because of the nature of the increase other sectors of construction have not experienced the same growth. In fact, heavy construction has experienced more of a decline than anticipated. Thus, our forecast for heavy construction was high. Because the growth of special trades was much greater, our forecast for construction was low. Although this presents a rosy picture for the state, the benefits were primarily felt in Maricopa, and to some extent, in Pima counties. The rest of the state has not enjoyed this resurgence in construction. With residential construction responsible for the rise in employment, the sensitivity to higher interest rates makes this increase extremely vulnerable. This vulnerability may keep any growth in construction below the pace of previous recoveries.

The forecast for the trade industries called for a modest 1.2 percent growth in 1983. At the mid-point our forecast was only two tenths of a percent too optimistic. The over-optimistic view was the result of overestimating the growth of wholesale trade. This was offset by the faster-than-anticipated growth of restaurant and small retail businesses. While these two sectors were performing better than expected, the rest of the trade industry was still showing signs of the recession on both sides of the border. Improvement that has appeared in trade has been heavily focused in Maricopa County. This is expected to continue until Mexican tourism and copper mining can begin to return to normal.

The services industry was expected to grow one-and-a-half percent in 1983 and up to this point has been growing faster than expected. The major force in the growth has been business services, which was under-shot by over three percent. This unexpected strength in business service may be attributed to the tendency of some manufacturers to hire temporary help rather than hire permanent workers. With an unstable recovery, this type of action allows manufacturers to cut payrolls and staff quickly. The service industry is expected to continue a

ACTUAL & FORECASTED INDUSTRY EMPLOYMENT
ARIZONA 1983 (MIDYEAR)



slow growth as population increases and the recovery push up the demand for the services. However, as confidence in the recovery grows, the need for temporary help should show a modest decline.

The finance, insurance and real estate (F.I.R.E.) industry has been the most uncooperative of the industries in the review. It is the only one that has gone in the opposite direction than expected. The forecast called for F.I.R.E. to drop by over one-and-a-half percent. In fact, the real estate portion has responded quickly to the changes in interest rates. Because of the quick reaction to market conditions, the real estate portion was underestimated by more than seven percent. An examination of the county data reveals that this was true in all estimated areas, with Maricopa taking the lion-share of the profits.

The last industry examined was government. After six months, our estimate was less than two percent too high. With the increase in population and the increasing demand for government services, we expected a slow increase of 2.7 percent over the year. After half the year, budget contraints and economic conditions have combined to slow that growth down. Another factor is the reduction in some summer programs with a resulting lack of increase in employment. This may have served to distort our comparison of our estimates when we assumed certain levels for the summer which did not materialize. With the state and local governments showing the slowest growth, it appears that budget constraints are forcing communities to delay expansion.

After examining each of the parts it is time to evaluate how well we forecasted the total. After one half of 1983, our forecast is one-tenth of one percent, or less than one thousand jobs, too high. We expected a modest growth for Arizona in 1983 and it appears that the economy may be recovering more slowly than we predicted. This suggests that the negative factors of federal deficits, a weak international economy and low confidence in the economy are not completely controlled, and are still contributing to the roller-coaster performance of some industries.

After the six month evaluation of our forecast, we decided that the forecast does not need to be updated. We feel that the original forecast of a moderate growth rate of 1.4 percent for state wage and salary employment is still a viable projection.

For manufacturing we originally forecast a very modest growth of eight-tenths of a percent for 1983. Our evaluation indicated that we were optimistic, but with signs of a moderate recovery we do not expect to be any further off at the end of the year. Our forecast for mining with growth of -10.4 percent was based on the assumption that most mines would remain closed through most of 1983. After six months our estimate is too high and it appears our projection may be too conservative. With the problems in several copper mines and the price of copper, it is not likely that employment will be making any dramatic increases this year. For 1983, we forecasted that construction would grow 6.4 percent with most of the upturn occuring in the latter half. After six months, it is apparent that we underestimated construction's potential in the first half. But with interest rates beginning to feel some upward pressure, we feel that the second half will not show the dramatic increases already experienced. Coupled with a poor performance in heavy construction, it appears that our projection will be closer at the end of the year than it is at present. Trade was expected to show a very slow growth of one percent in 1983. With the six month figure two-tenths of one percent off, we feel confortable with that projection. The figure also supports our belief that the expansion would be primarily in Maricopa and Pima with the nonmetropolitan counties suffering from weak economies and showing little or no growth in 1983. The F.I.R.E. industry was expected to drop 1.6 percent in 1983. The first half of the year indicates that this estimate was wide of the mark as the real estate portion responded to the increase in construction. If interest rates do slow down the residential market, the real estate portion should slow its growth. With this slow down and a projected increase for the last half of the year, the projection for F.I.R.E. could approach the actual levels by the end of the year. We expected services to show a modest increase of one-and-one-half percent over the year. At present, the projection is low and could remain low unless the use of temporary help by some industries is curtailed. In fact, if that does occur, the effect could be to make the manufacturing and services estimates close to the projection. In government, we estimated an increase of 2.7 percent. At mid-year our projection was high by almost two percent. Because government employment is more volatile in the summer, this discrepancy may not be as bad as it appears. This, coupled with some increase in state and local employment (as the communities get more responsibility for programs previously handled by the federal government), should help government employment meet its projected growth rate.

- - - Bill Bowen

PHOENIX AREA WORKERS LOSE MORE REAL INCOME THAN OTHER U.S. WORKERS

Was Phoenix ahead or behind the United States in wage increases from 1977 through 1982? How did the two wage indices fare with inflation increases for the same period? An analysis of wage levels from the Maricopa Small Employer Wage Surveys since 1977 shows that Phoenix area average earnings increases lagged slightly behind those of the nation. The base year for these indices is 1977. The same industries for the United States and Maricopa County and a similar occupational mix in these industrial sectors are used in both. The hourly earnings index for the U.S., compiled by the U.S. Department of Labor, excludes fluctuations in manufacturing overtime payments and the effects of changes in the proportion of workers in high-wage and low-wage industries. The Maricopa County small employer wage survey reports base wages, excluding tips, overtime, bonuses and commissions, and reflects movement of workers among industries. The Maricopa County small employer wage index was 144.3 and the United States hourly earnings index, 152.1 in the latter part of 1982. These wage increases were below inflation increases for this period.

What does this mean in dollars and cents? The U.S. wage index simply states that the average nonsupervisory employee in the private nonagricultural economy making one hundred dollars in 1977 is, in December of 1982, earning $152.10. An average worker in Maricopa County earning one hundred dollars in 1977 made $144.30 in 1982. Converting this to percentage increases (from 1977 through 1982), an average worker's income in the U.S. rose 52.1 percent, and in Maricopa County, 44.3 percent.

How does this compare to the CPI's increases? An average yearly wage rise of nearly eight percent in Maricopa County doesn't seem too bad, does it? The workers of small employers, one hundred or less in employment size, are doing alright, aren't they? Nope! Even as unemployment rates increased in the state and nation, and while the rises in inflation were slowed over the last several years in Phoenix and the U.S., total wage increases are still behind CPI rises from 1977 through 1982. The Phoenix metropolitan area consumer price index rose 67.2 percent for the same period. The price of a 1977 "market basket" of goods and services rose from $100.00 to $167.20. This leaves the average small business employee in Maricopa County over twenty percent short of wages to maintain the purchasing power of his 1977 dollars. He will have to make cuts somewhere, most likely delaying purchase of a new home or traveling less. These two components of the Phoenix CPI have led its increase from 1977 through 1982, the homeownership category, 110.1 percent; and gasoline, 104.5 percent. Three lagging components of the Phoenix CPI index recorded the following percentage increases through 1982: Food at Home, 54.2; Fuel and Other Utilities, 49.2; and Apparel and Upkeep, 31.6 percent. The only other sectors of the Phoenix metropolitan CPI index since 1977 that have recorded smaller increases than the wage index rise to 144.3, were Housing Furnishings and Operations, 140.4 and Other Goods and Services, 142.4.

If the wage earner does not want to cut back on some of these rising living expenditures, he has these options: 1) Get another job; or, 2) Put a wife/husband to work.

Persons with Two or More Jobs,
United States (000's)

1965	1970	1975	1976	1977	1978	1979	1980
3756	4048	3918	3948	4558	4493	4724	4759

Workers with second jobs did not increase dramatically in the nation, but the number of employed wives rose significantly from 1977 through 1981. Working wives of employed husbands grew three million in the U.S. during this period. This compares to a rise of a little over two million wives of employed husbands joining the working ranks for the twelve-year period ending in 1977 in the U.S. It appears that wives pitched-in to alleviate the rising cost of living during this period.

The U.S. consumer price index rose 59.3 percent from 1977 to 1982. This is seven percentage points greater than the increase in the nation's wage index for this period.

Some other comparisons should be made to place the 1982 wage indices of the Phoenix area of 144.3 and the United States of 152.1 in their proper perspective.

U.S. Hourly Earnings Index and Maricopa County Small Employer Wage Index, August, 1982 (1977 = 100)

Industry	U.S.[1] 1982	Maricopa County 1982
Construction	143.8	119.5
Manufacturing	155.6	154.5
Trans., Comm. & Pub. Utilities	153.4	161.8
Wholesale Trade	-	142.1
Retail Trade	-	138.2
All Trade	148.6	-
Finance, Insurance & Real Estate	153.7	142.7
Services	152.4	159.6

[1] Employment and Earnings, U.S. Department of Labor, May 1983.

As some wage earners in Maricopa County and the United States bit the bullet, others did better during the five-year period after 1977. Landowners did, as farm real estate average value per acre rose from 1977 through 1982, 57.0 percent in the United States and a large 86.0 percent in Arizona. The price of a new one-family house increased 57.4 percent in the U.S. and 64.8 percent in the western part of the country. Retired workers, drawing Social Security, saw their average monthly benefits rise 59.2 percent from 1977 to 1981.

Workers in some industries enjoyed larger wage increases than others in this period of high-rising living costs from 1977 through 1982 in the Phoenix metropolitan area and in the United States. Employees in the manufacturing industry recorded the largest wage increase in the United States, 55.6 percent, and among small employers in Maricopa County, 54.5 percent. Both of these figures were still below the CPI increases. These manufacturing workers wages rose despite taking the brunt of the last recession, along with the construction industry.

U.S. Average Hourly Earnings and Maricopa County Small Employer Average Hourly Wages

Industry	U.S.[1]	Maricopa County
Construction	$11.58	$9.16
Manufacturing	8.57	7.75
Trans., Comm. & Pub. Utilities	10.40	7.98
Wholesale Trade	-	6.95
Retail Trade	-	5.28
All Trade	6.26	-
Finance, Insurance & Real Estate	-	7.38
Services	7.00	6.42

[1] Employment and Earnings, U.S. Department of Labor, May 1983.

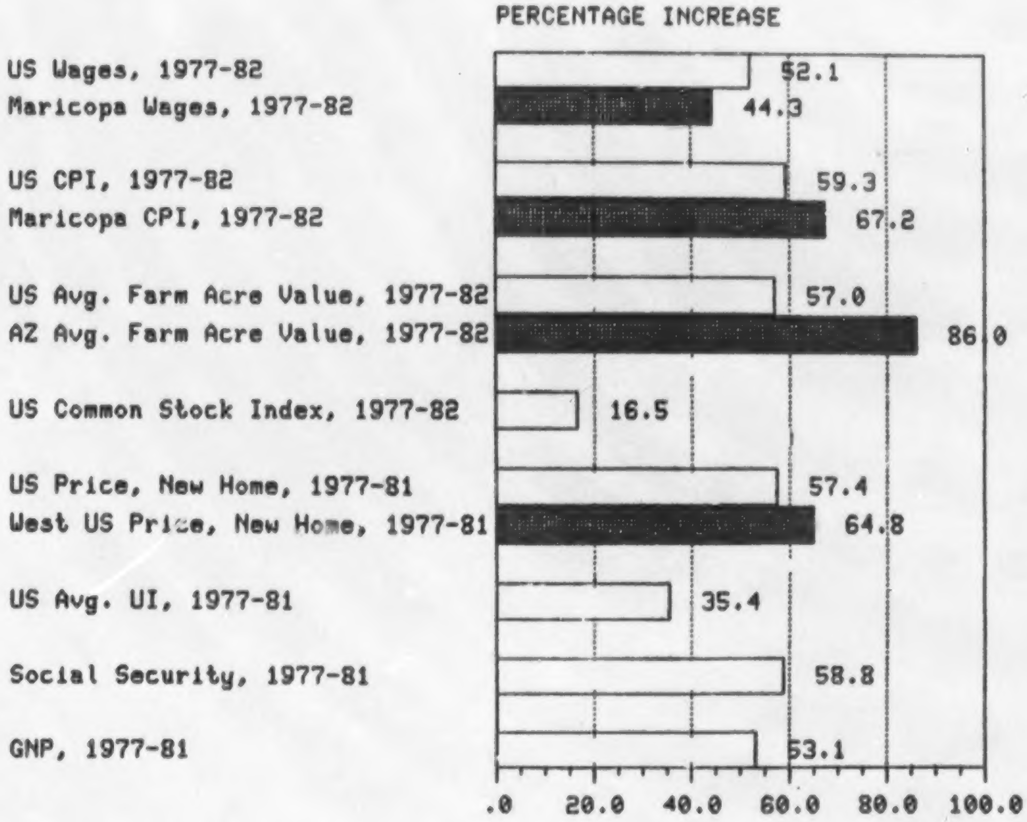
The construction industry's wage increases were the lowest from 1977 through 1982, showing only a rise of 43.8 percent in the U.S. and 19.5 percent in Maricopa County. The construction industry's small wage increase in Maricopa County was due greatly to a decrease in the overall wage level during 1982, a severely depressed year for building, after coming off boom years from 1978 to 1980. This industry in Arizona is also open shop, unlike in much of the nation. As mentioned earlier, the U.S. wage level increase for manufacturing employees led the nation for this period, while that of construction workers in the Phoenix metropolitan area had the smallest increase.

Small employer workers in the transportation, communications, and public utilities and the services industries led the nation in Maricopa County in wage level increases from 1977 through 1982, recording percentage increases of 61.8 and 59.6.

Workers in the remaining reported industries suffered to varying degrees in the United States and Maricopa County. Following is the change for these two areas from 1977 through 1982.

- - - Glede Kohler

WAGE CHANGES COMPARED
U.S. & MARICOPA COUNTY
1977-1982



ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES

	July 1983	June 1983	July 1982	% Change From 1 Year Ago
Arizona Claimants Served**	47,054	61,057	56,204	-16.3%
Arizona Weeks Unemployed***	9.7	INA	9.2	+ 5.4%
Arizona Benefits Paid**	$15,004,263	$19,150,037	$20,880,689	-28.1%
Arizona Trust Fund Balance	$173,356,635	$175,182,586	$265,554,860	-34.7%

*Estimated **All Programs ***UI Only

Arizona Labor Force and Employment

August 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Aug.* 1983	Jul. 1983	Aug. 1982	Jul. to Aug.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1326.5	1326.1	1314.1	+0.4	+12.4
Total Unemployment	125.6	134.9	149.3	-9.3	-23.7
Rate	9.5	10.2	11.4	---	---
Rate (Sea. Adj.)**	9.2	9.7	11.1	---	---
Total Employment	1200.9	1191.2	1164.8	+9.7	+36.1

THE ABOVE LABOR FORCE STATISTICS SHOULD NO

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1009.8	1018.1	1002.5	-8.3	+7.3
Manufacturing	152.6	153.4	152.7	-0.8	-0.1
Durable Goods	118.5	119.6	118.7	-1.1	-0.2
Stone, Clay and Glass	5.9	5.9	5.0	+0.0	+0.9
Primary and Fabricated Metals	12.8	14.0	14.6	-1.2	-1.8
Primary Metals	5.3	6.4	7.0	-1.1	-1.7
Fabricated Metals	7.5	7.6	7.6	-0.1	-0.1
Machinery	60.7	61.0	62.1	-0.3	-1.4
Other Durable Goods	39.1	38.7	37.0	+0.4	+2.1
Aircraft and Missiles	17.7	17.5	17.2	+0.2	+0.5
Lumber and Wood Products (Except Furniture)	6.1	6.0	5.1	+0.1	+1.0
All Other Durable Goods	15.3	15.2	14.7	+0.1	+0.6
Nondurable Goods	34.1	33.8	34.0	+0.3	+0.1
Food and Kindred Products	8.3	8.0	8.8	+0.3	-0.5
Apparel	4.7	4.5	4.9	+0.2	-0.2
Printing and Publishing	11.8	11.9	11.4	-0.1	+0.4
All Other Nondurable Goods	9.3	9.4	8.9	-0.1	+0.4
Mining and Quarrying	14.5	14.7	16.9	-0.2	-2.4
Copper Mining	11.5	11.7	13.8	-0.2	-2.3
Other Mining and Quarrying	3.0	3.0	3.1	+0.0	-0.1
Construction	75.4	74.8	63.4	+0.6	+12.0
Trans., Communications, and Public Utilities	47.7	55.9	56.6	-8.2	-8.9
Transportation	23.4	23.5	23.3	-0.1	+0.1
Communications and Public Utilities	24.3	32.4	33.3	-8.1	-9.0
Trade	251.2	251.1	249.2	+0.1	+2.0
Wholesale Trade	50.5	50.5	49.9	+0.0	+0.6
Retail Trade	200.7	200.6	199.3	+0.1	+1.4
General Merchandise and Apparel	36.2	36.3	36.8	-0.1	-0.6
Food Stores	31.8	31.8	31.9	+0.0	-0.1
Automotive and Service Stations	24.6	24.5	24.5	+0.1	+0.1
Eating and Drinking Places	68.1	67.9	66.8	+0.2	+1.3
Other Retail Trade	40.0	40.1	39.3	-0.1	+0.7
Finance, Insurance, and Real Estate	62.9	63.0	61.8	-0.1	+1.1
Services and Miscellaneous	225.5	225.7	220.6	-0.2	+4.9
Hotels and Other Lodging Places	21.9	22.3	22.0	-0.4	-0.1
Business Services	42.5	42.0	40.7	+0.5	+1.8
Health Services	62.2	62.3	60.8	-0.1	+1.4
Other Services	98.9	99.1	97.1	-0.2	+1.8
Government	180.0	179.5	181.3	+0.5	-1.3
Federal	38.6	38.6	38.0	+0.0	+0.6
State and Local	141.4	140.9	143.3	+0.5	-1.9
School	73.2	71.7	74.0	+1.5	-0.8

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

BEST AVAIL

Arizona Labor Force and Employment

August 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Aug.* 1983	Jul. 1983	Aug. 1982	Jul. to Aug.	1982 to 1983	Aug.* 1983	Jul. 1983	Aug. 1982	Jul. to Aug.	1982 to 1983
810.2	808.2	795.8	+2.0	+14.4	246.0	245.4	240.3	+0.6	+5.7
58.1	61.8	69.0	-3.7	-10.9	21.1	23.0	25.6	-1.9	-4.5
7.2	7.6	8.7	---	---	8.6	9.4	10.7	---	---
7.0	7.3	8.5	---	---	8.4	9.0	10.4	---	---
752.1	746.4	726.8	+5.7	+25.3	224.9	222.4	214.7	+2.5	+10.2

BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

MARICOPA COUNTY					PIMA COUNTY				
644.7	651.4	637.8	-6.7	+6.9	187.0	188.1	183.2	-1.1	+3.8
109.4	110.8	110.6	-1.4	-1.2	26.4	26.3	25.6	+0.1	+0.8
86.3	87.6	88.0	-1.3	-1.7	21.6	21.5	20.8	+0.1	+0.8
3.7	3.7	3.0	+0.0	+0.7					
7.9	9.2	9.7	-1.3	-1.8					
48.1	48.4	49.7	-0.3	-1.6					
26.6	26.3	25.6	+0.3	+1.0					
23.1	23.2	22.6	-0.1	+0.5	4.8	4.8	4.8	+0.0	+0.0
5.4	5.5	5.7	-0.1	-0.3					
2.3	2.2	2.4	+0.1	-0.1					
8.6	8.7	8.3	-0.1	+0.3					
6.8	6.8	6.2	+0.0	+0.6					
0.6	0.6	0.6	+0.0	+0.0	3.1	3.3	4.2	-0.2	-1.1
51.0	50.5	42.1	+0.5	+8.9	15.2	15.0	12.2	+0.2	+3.0
29.6	35.2	35.6	-5.6	-6.0	7.0	8.8	9.0	-1.8	-2.0
15.1	15.1	14.9	+0.0	+0.2	3.9	3.9	3.9	+0.0	+0.0
14.5	20.1	20.7	-5.6	-6.2	3.1	4.9	5.1	-1.8	-2.0
166.9	166.7	165.1	+0.2	+1.8	42.5	42.6	43.0	-0.1	-0.5
40.5	40.5	40.0	+0.0	+0.5	6.1	6.1	5.9	+0.0	+0.2
126.4	126.2	125.1	+0.2	+1.3	36.4	36.5	37.1	-0.1	-0.7
22.7	22.8	23.1	-0.1	-0.4	6.6	6.7	7.3	-0.1	-0.7
20.3	20.2	20.3	+0.1	+0.0	5.1	5.1	5.2	+0.0	-0.1
15.0	14.9	14.8	+0.1	+0.2	4.4	4.4	4.4	+0.0	+0.0
41.2	41.1	40.4	+0.1	+0.8	12.9	12.8	12.9	+0.1	+0.0
27.2	27.2	26.5	+0.0	+0.7	7.4	7.5	7.3	-0.1	+0.1
48.6	48.7	48.1	-0.1	+0.5	9.3	9.2	8.6	+0.1	+0.7
148.4	148.8	144.5	-0.4	+3.9	44.1	44.0	42.3	+0.1	+1.8
11.7	12.2	12.1	-0.5	-0.4	3.1	3.0	3.0	+0.1	+0.1
34.6	34.3	33.0	+0.3	+1.6	6.2	6.1	6.0	+0.1	+0.2
41.2	41.4	40.0	-0.2	+1.2	13.6	13.5	13.4	+0.1	+0.2
60.9	60.9	59.4	+0.0	+1.5	21.2	21.4	19.9	-0.2	+1.3
90.2	90.1	91.2	+0.1	-1.0	39.4	38.9	38.3	+0.5	+1.1

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

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NONMETROPOLITAN COUNTIES LABOR FORCE & EMPLOYMENT
AUGUST 1983 (PRELIMINARY)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,650	29,025	35,675	14,525	8,400	3,350	4,925
Total Unemployment	3,650	3,050	3,900	3,075	1,750	350	950
Rate	23.3%	10.5%	10.9%	21.2%	20.8%	10.4%	19.3%
Rate (Seas. Adj.)**. . . .	23.0%	10.7%	10.9%	21.7%	20.1%	9.9%	INA
Total Employment	12,000	25,975	31,775	11,450	6,650	3,000	3,975

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY . . .	12,525	21,000	29,825	9,225	4,100	2,400	2,400
Manufacturing	500	1,800	2,375	1,250	100	350	100
Mining and Quarrying	25	400	50	1,575	75	1,075	0
Construction	1,500	700	1,100	350	175	25	100
Trans., Comm., & Pub. Util..	1,625	1,375	2,150	250	175	50	50
Trade	1,025	4,150	7,275	1,750	1,325	300	900
Fin., Insur., & Real Estate.	125	550	775	225	125	25	125
Services and Miscellaneous .	3,075	2,725	7,625	1,625	625	75	625
Government	4,650	9,300	8,475	2,200	1,500	500	500

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,075	25,900	31,475	9,350	31,800	38,075
Total Unemployment	2,975	5,050	5,675	2,800	2,600	10,625
Rate	13.5%	19.5%	18.0%	29.9%	8.2%	27.9%
Rate (Seas. Adj.)**. . . .	13.6%	20.1%	17.4%	26.9%	8.7%	INA
Total Employment	19,100	20,850	25,800	6,550	29,200	27,450

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY . . .	14,550	16,325	21,950	6,500	17,175	20,125
Manufacturing	2,100	1,625	2,350	750	1,900	1,525
Mining and Quarrying	275	1,100	5,125	25	1,050	75
Construction	975	750	525	175	1,100	1,750
Trans., Comm., & Pub. Util..	950	1,650	875	500	675	825
Trade	4,400	3,450	3,600	2,650	4,625	6,275
Fin., Insur., & Real Estate.	625	300	575	250	725	675
Services and Miscellaneous .	2,600	3,775	2,025	875	3,575	3,725
Government	2,625	3,675	6,875	1,275	3,525	5,275

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS
July 1983 (Preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,326,874	1,191,887	134,987	10.2%
Apache	16,005	11,971	4,034	25.2
Cochise	29,149	25,873	3,276	11.2
Coconino	36,447	31,674	4,773	13.1
Gila	14,574	11,246	3,328	22.8
Graham	8,424	6,551	1,873	22.2
Greenlee	3,121	2,956	165	5.3
La Paz	4,785	3,961	824	17.2
Maricopa	807,722	745,617	62,105	7.7
Mohave	22,629	19,289	3,340	14.8
Navajo	26,339	20,364	5,975	22.7
Pima	246,966	223,817	23,149	9.4
Pinal	32,030	25,685	6,345	19.8
Santa Cruz	9,251	6,530	2,721	29.4
Yavapai	32,051	29,109	2,942	9.2
Yuma	37,381	27,244	10,137	27.1

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS
IN SELECTED INDUSTRIES IN ARIZONA

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	AUG.* 1983	JULY 1983	AUG. 1982	AUG.* 1983	JULY 1983	AUG. 1982	AUG.* 1983	JULY 1983	AUG. 1982
	----	----	----	----	----	----	----	----	----
FOR THE STATE OF ARIZONA*									
Manufacturing	359.39	373.41	345.32	40.2	40.5	38.8	8.94	9.22	8.90
Aircraft & Missiles	471.50	465.34	419.63	41.8	41.4	39.7	11.28	11.24	10.57
Food & Kindred Products	347.20	365.15	318.76	39.5	41.4	40.4	8.79	8.82	7.89
Primary Metals	438.62	429.00	460.80	36.1	35.9	38.4	12.15	11.95	12.00
Machinery	362.30	363.21	303.80	41.5	41.7	38.7	8.73	8.71	7.85
Copper Mining	533.57	521.26	505.56	39.7	37.8	38.3	13.44	13.79	13.20
Construction	441.04	421.26	433.41	36.3	35.7	34.1	12.15	11.80	12.71
Utilities	512.24	512.24	453.02	43.3	43.3	41.6	11.83	11.83	10.89
Retail Trade**	217.90	206.86	209.99	34.1	33.8	34.2	6.39	6.12	6.14
Wholesale Trade	353.12	353.12	315.40	39.9	39.9	38.0	8.85	8.85	8.30

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

THE ARIZONA LABOR FORCE IN AUGUST 1983

August recorded another significant drop in the unemployment rate. This is the second time this year that the rate has dropped a half a percentage point in one month and it marks a nearly full percentage point drop in the last three months. While improvements in the Phoenix and Tucson areas continued to dominate, nearly every nonmetropolitan county showed a decrease in its unemployment rate. But our optimism is tempered by the fact that over 10,000 individuals were on strike in August and this tends to distort the data.

Statewide, the majority of the employment increase came in the construction and manufacturing industries, after removing the effect of strikers. In manufacturing, losses among electronics manufacturers were offset by increases in the aerospace and nondurable sectors. Usual seasonal increases in food processing are expected to be weaker this year than normal as flooding of the Colorado River cuts into agricultural production both in Arizona and Mexico. Flooded farmland in Mexico will reduce chili and other produce processing in Arizona as well as producing the troubles currently being experienced in Yuma, La Paz, and Mohave counties.

Following the torrid pace of construction hiring over the last few months, August's increase of only 600 relfects the impact of rising vacancy rates and higher mortgage interest costs. To get a perspective on just how fast the housing industry is growing in Phoenix, realize that only the Dallas-Fort Worth and Houston metropolitan areas are expected to build more housing in 1983. This puts us nearly at the 1978 record level and well ahead of many larger metropolitan areas.

Among the state's remaining industries, little significant activity was recorded. In general, employers seem to be finding ways to maintain staffs at existing levels to handle increased business. Where necessary, temporary help agencies are referring people to jobs, but the duration of these jobs is unknown. Overall, the state's slowly growing population is forcing the population-serving industries of trade, services, and government to moderate their growth.

Our economic signals remained mixed in August. On the positive side, the unemployment rate was down sharply while the construction and manufacturing industries continued to look good. Meanwhile, slow population growth has kept many consumer-oriented businesses from expanding and has left our civilian labor force only slightly above its level of a year ago. The economic recovery continues to be weak and concentrated in a limited number of industries. Employment, particularly in the nonmetropolitan areas, remains an elusive prize.

NEW DEVELOPMENTS

Construction - The Opus Corporation will design and build a $5 million divisional headquarters and manufacturing facility for GenRad Inc., Service Products Division. GenRad will consolidate two Phoenix facilities at the new 80,000 sq. ft. site south of the southeast corner of Greenway Road and Interstate 17. The building is scheduled for occupancy in May 1984. GenRad makes electronic systems and instrumentation for semiconductor, electronic, and mechanical tests used in manufacturing.

MiCasa Builders of Casa Grande was awarded a $282,000 contract to remodel a new economic social service center. The city had purchased an old Main Street market building and obtained $238,500 lease purchase funds to remodel it for three social and health service providers. Tenants are to include the Arizona Department of Economic Security, the Behavioral Health Agency of Central Arizona, and the West Pinal Family Health Center.

A new 120,000 sq. ft. DeVry Institute of Technology will be built on the southeast corner of 22nd Avenue and Dunlap Road in Phoenix. Ground will be broken in October and completion is scheduled for June 1984. The Opus Corporation won the $10.4 million contract for construction of the new facility.

Construction will begin soon on the Westin Hotel in the La Paloma development in Tucson. Located in the Catalina foothills along Skyline Drive near North Campbell Avenue, the hotel will be the centerpiece of the development. Completion of the resort is scheduled for October 1985.

Government - The City of Phoenix ended a six- month hiring freeze in July. Revenue shortfalls forced imposing the freeze in December of last year, but the start of a new fiscal year enabled curtailing it. City Manager, Marvin Andrews said it would be reimposed later this fiscal year if sales tax revenues fall as they did last year. During the freeze the city accumulated about 300 vacancies. Interested job seekers should call the city job line to see what vacancies are currently being filled. The City of Phoenix job line is 262-7356.

Manufacturing - Motorola's Chandler semiconductor plant neared completion during August, right on schedule. The plant was to be equipped during September and some hiring should begin during the early fall. When fully staffed, the plant will employ 1500, but initially there will be 750 engineers, technicians, and production workers. Some positions were to be filled by employees from other Motorola plants, but others would be new hirings. The building occupies part of 40 acres owned by Motorola at Knox and Alma School Roads.

Another Chandler Motorola plant on property bounded by Germann, Price, Queen Creek and Dobson Roads is scheduled for opening in 1986 or 1987. About 1000 are expected to be employed at this Government Electronics Division Plant.

Turney Manufacturing of Phoenix won a $95 million contract to construct mobile starting generators for the U. S. Army. A $3.4 million developmental start-up phase of the multiyear contact has already begun. The total contract calls for 1,588 generators to be delivered by 1990.

Tartan Industries Inc. of Los Angeles has purchased a 4-acre parcel in Mohave County's airport industrial park in Kingman. Ten to fifteen people will be employed at the site by November. The plant will have an engine-assembly division, and a containerization division which will manufacture automated-packaging systems. Airport Manager Bob Reilly said this would bring employment in the park to 260 by nine firms.

VALLEY OF SUN HOTEL CONTRUCTION BOOM

Services and Tourism - A boom in new hotel construction is currently underway in the Valley of the Sun according to two Valley observers. Michelle Beardon-Mason of the Phoenix Gazette and Ted Rushton of the Arizona Business Gazette both published articles in August summarizing the development of major facilities they could identify.

Beardon-Mason pegged the total value of construction at more than $1 billion with an addition of 6,000 rooms in 17 facilities. Concentrating on the East Valley, Rushton identified five major projects that would add 1,000 rooms and suites to that area.

Altogether, 20 separate developments were identified, including:

Arizona Resort - Phoenix, 19th Avenue and Mandalay (between Thunderbird and Greenway Roads) - 235 rooms initially, 430 by 1986. Groundbreaking September 23, 1983 - opening December, 1984.

Biltmore Financial Center (hotel unnamed) - Phoenix, 24th Street and Camelback Road - 300 rooms. Opening early fall 1985.

The Boulders - Carefree - off Tom Darlington Highway - 125 casitas. Opening November 1985.

Dobson Ranch Inn - Mesa, Dobson Road at the Superstition Freeway. 50 - 60 additional suites. Groundbreaking - Spring 1984. Opening business season, 1985.

El Mirage Resort - El Mirage, Grand Avenue and west bank of Agua Fria River - 250 rooms. Opening July 1985 or before.

Gainey Ranch - Scottsdale - off Doubletree Ranch Road on Gainey Ranch property - 440 rooms. Opening mid to late 1986.

Gateway Hotel - Phoenix, 44th Street and Van Buren - 243 suites. Opening November 1984.

Hilton of the East Valley - Mesa, Alma School Road and the Superstition Freeway - 263 suites. Groundbreaking Fall, 1983. Opening Fall, 1984.

L'Ermitage - Scottsdale, 70th Street and Marshall Way - 200 suites. Opening 1985.

Loews Paradise Valley Resort - Scottsdale, 5401 North Scottsdale Road - 360 rooms, 27 suites. Opening early 1984.

Mesa downtown hotel (unnamed) - Mesa, south of University Drive at Surine Street, and west of Centennial Hall and the Mesa Amphitheater - 251 rooms, 35 suites. Groundbreaking October 1983. Opening November, 1984.

Mesa Holiday Inn - Mesa, Country Club Drive at the Superstition Freeway. Adding 84 suites. Construction underway, opening date unannounced.

Phoenix Biltmore Granada Royale Hometel - Phoenix, 2600 E. Camelback Road - 200 suites. Opening 1984.

Pinnacle Peak East Village area (unnamed) - Scottsdale, Pinnacle Peak East Village at base of McDowell Mountains - 200 rooms, 350 casitas. No groundbreaking or opening dates announced.

The Pointe at South Mountain - Phoenix, Baseline Road, west of Interstate 10 - 800 suites. Construction underway, opening late 1986.

San Marcos Resort - Chandler, Arizona Avenue and San Marcos - 250 suites. Construction of new suites and renovation of old facilities to begin in 1984. Opening date unannounced.

Sheraton Plaza of Tempe - Tempe, Rural Road and the Superstition Freeway - 234 suites. Opening late summer 1984.

South Mountain Corporate Park - Tempe, Baseline Road, east of Interstate 10 - 2 hotels. Opening 1986.

Sun Devil Resort Inn and Conference Center - Tempe, downtown on 5th Street - 250 rooms. Opening late 1984.

Many of these proposed hotels will have multiple restaurant facilities as well as a variety of recreational facilities, such as golf courses, riding stables, health clubs, tennis courts, boutique shops, ballrooms, and rodeo grounds.

Naturally, all of these new resorts will generate a significant amount of additional employment. Judging from reports from existing hotels of similar size range, average employment levels during the tourist season will be about 225. Therefore, the total employment that can be expected from these new hotels is about 4,500 altogether. A typical staffing pattern for hotels implies new opportunities for the following occupations in the amounts shown:

ESTIMATED EMPLOYMENT OF PRINCIPAL OCCUPATIONS TO BE EMPLOYED BY 20 PROPOSED MAJOR HOTELS IN THE VALLEY OF THE SUN

Rank	Occupation	Employment	% of Total
	TOTAL	4,500	100.0
1	House Cleaners	864	19.2
2	Counter Attendants	572	12.7
3	Managers and Officers	302	6.7
4	Desk Clerks	297	6.6
5	Waiters or Waitresses	221	4.9
6	Dining Room Attendants	198	4.4
7	Cooks, restaurant	153	3.4
8	Maintenance Repairers	153	3.4
9	Bartenders	122	2.7
10	All other Janitors, Porters, Cleaners	104	2.3
11	Gardeners and Groundskeepers	95	2.1
12	Secretaries	90	2.0
13	Bellhops, Bag Porters	77	1.7

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Arizona Labor Market NEWSLETTER
LABOR MARKET INFORMATION PUBLICATIONS
Site Code 733A
P.O. Box 6123
Phoenix, Arizona 85005

PHOENIX ARIZ.
OCT 20 '83
U.S. POSTAGE
0.37